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Volume XI

Numbers 1 to 12

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of the

Medical Association *of* Georgia

1922

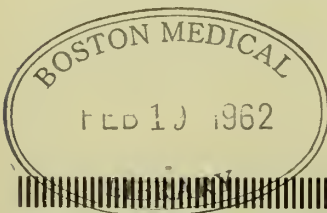
TO THE MEMBERS OF THE MEDICAL ASSOCIATION  
OF GEORGIA:

With this issue we complete volume eleven of the Journal and close the year 1922. From many standpoints this has been the most successful year in the history of the Association. During the month of December annual meetings for the election of new officers should be held by all county societies. As soon as new officers are elected and dues collected they should be reported for publication. With the co-operation of all officers and members we should be able to make 1923 our banner year.

Let every member put his shoulder to the wheel and give our President, Dr. J. M. Smith, of Valdosta, the largest paid membership in our history at the Savannah meeting next May.

Your Association expects every member to do his duty.

ALLEN H. BUNCE,  
Secretary-Treasurer.



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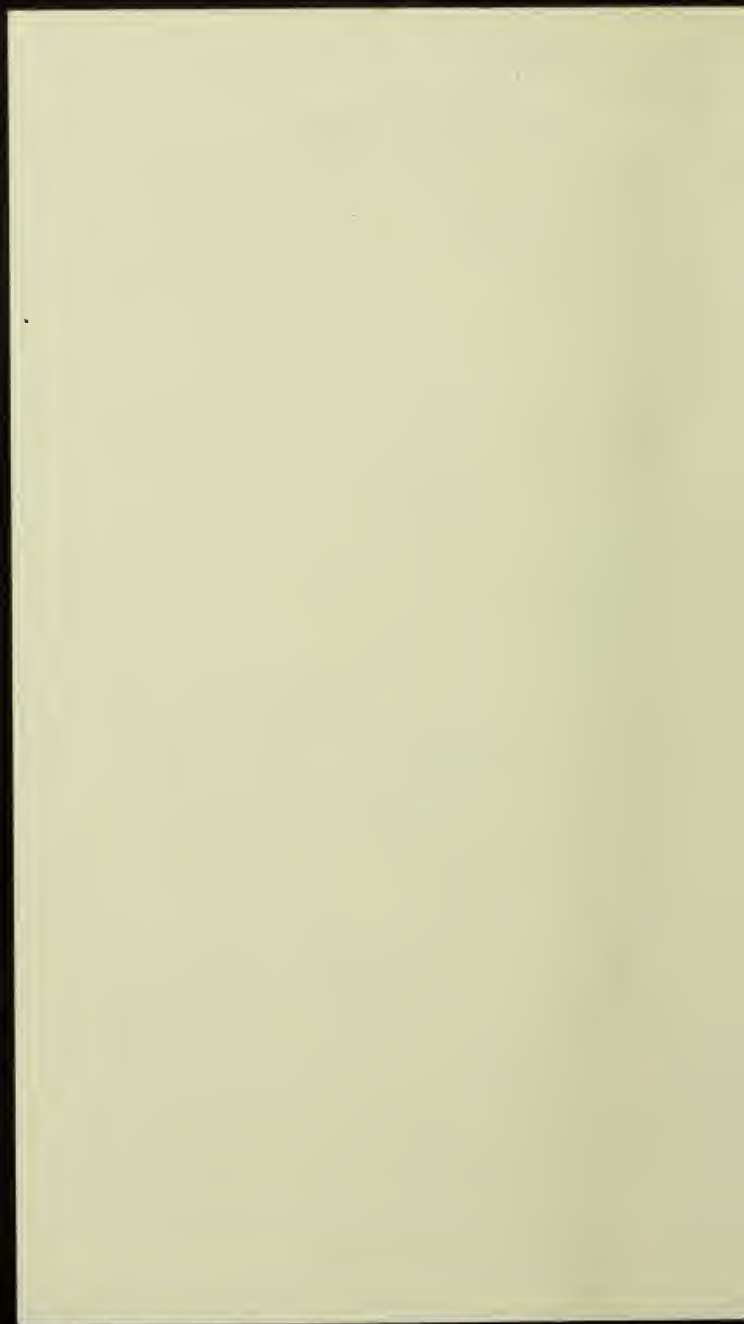
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# THE JOURNAL

OF THE

## MEDICAL ASSOCIATION OF GEORGIA

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Volume XI

ATLANTA, GA., JANUARY, 1922

No. 1

### ORIGINAL ARTICLES

#### THE MANAGEMENT OF CERTAIN TYPES OF MALIGNANCIES.\*

Jackson W. Landham, M. D.

Roentgenologist Grady (City) Hospital,  
Davis-Fisher Sanatorium and Anti-tubercu-  
losis Association.

Atlanta, Ga.

Malignancies have always been considered surgical problems when seen early and when the location of the growth permitted its radical surgical removal. However, by the combined use of the x-ray, radium, electro-coagulation and fulguration in connection with surgery, or alone in inoperable cases and in those where the location of the growth renders surgery impossible, results have been obtained which warrant the consideration of these measures in the management of all types of malignancies.

Since the invention of the Cooledge tube, the modern x-ray transformers, which deliver a unidirectional current at an extremely high voltage, and the advances made in the technique of x-ray therapy, the x-ray has become established as one of our most valuable therapeutic agents in the treatment of these conditions.

The results obtained by radium therapy since the technique of embedding radium emanation tubes or needles containing radium into malignant tumors have been such as to greatly increase the field of usefulness of this therapeutic measure.

Both the malignant growth and the patient should be carefully studied before deciding on the methods of treatment to be pursued and the intensity and duration of treatment. The anatomical location must be

considered both on account of the depth of the lesion and the susceptibility of the surrounding normal tissues to the action of the rays. The depth must be considered before one can know through how many portals of entry the rays must be administered in order to reach the tumor with a lethal dose. The general condition of the patient, the age and the size of the patient bear a very important relationship to the malignancy present. A knowledge of the histological structure gives us information in reference to the degree of malignancy and the tendency to metastasize.

Since the technique and plan of treatment must vary according to the location and histological structure of the neoplasm, the cases I am reporting have been so classified.

#### Basal Cell Epithelioma.

Basal cell epitheliomas occur in nodular form, as an ulcerated area or as a scaly lesion. They occur more frequently in men and nearly always on exposed surfaces of the skin, 96.28% of them being located above the clavicles. Since these lesions occur on exposed surfaces of the body and since the treatment of them by means of fulguration, radium and the Roentgen ray is followed by better cosmetic effects and with equally as high a percentage of cures as follows surgical measures, I do not think that surgery is the method of choice in their management.

The technique that has proved very satisfactory to me in treating these lesions is as follows:

1. Destroy inflammatory and hypertrophic tissue by fulguration and thus close the lymphatics which have a direct communication with the lesion.

2. Irradiate the lesion with the Roentgen ray or radium. Protect the surrounding nor-

\*Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



No. 1. A. Large ulcerated hypertrophic squamous cell epithelioma of six years duration.

mal tissue by means of a sheet of lead 1-16th inch thick which has been perforated to conform to the size of the growth to be treated. The area treated should receive a full erythema dose. It is not necessary to use a great deal of filtration, two millimeters of aluminam when treatment is done with the x-ray or five-tenths of a millimeter of brass when done with radium is all that is needed.

3. Treat regional lymphatics with the x-ray to prevent the possibility of metastases, since it has been shown by Broders and MacCarty that a basal cell epithelioma may undergo such changes as to show the squamous cells predominating and thus form metastases. Since the lymphatics are located deeper than the epithelioma, deep therapy is indicated in their treatment, employing heavy filtration and a high voltage.

#### **Epithelioma of the Mucous Membrane of the Mouth.**

These lesions are highly malignant and show a tendency to metastasize very early,



No. 1. B. After treatment.

yielding a high mortality rate regardless of the plan of treatment selected. The statistics of radiologists in regard to their treatment are not to be compared with those compiled by surgeons on account of the fact that most of these cases seen by the radiologists are referred by the surgeon after having been classified as inoperable. The management of these cases requires fulguration, the administration of massive doses of radium embedded into the growth or applied in very close contact with the growth, supplemented by intensive x-ray treatments over the growth and all the adjacent lymphatics. The normal mucous membrane of the mouth shows a high degree of sensitiveness to the action of all forms of radiation which makes it necessary to devise ample means of protection to the surrounding healthy tissues. This may be done by wrapping the applicator containing the radium with layers of sheet lead about one millimeter thick. The lead is flexible and may be molded into the desired shape. After this is done a hole is cut through the lead at the point of contact of the applicator and lesion to be treat-





3. A. Photograph of patient with sarcoma of the neck showing the method employed in embedding radium into the tumor. Since the radium is embedded deeply into the tumor the radium treatment may be supplemented by heavy x-ray treatment.



2. B. Photograph showing incision through skin and fascia made previous to embedding needles containing radium into the tumor. The needles are threaded with silk worm gut so that they may be easily extracted.

ed. By providing ample protection to the surrounding normal tissues the treatment of the local lesion may be done adequately which means treatment to the point of ulceration.

The pain incident to the inflammatory reaction may be controlled by the application of a two percent apothesine solution which is non-toxic and may be applied locally as often as necessary.

#### **Cancer of the Breast.**

##### **Inoperable, postoperative, recurrent and metastases.**

Radiotherapy accomplishes a cure in a limited number of these cases, prolongation of life in many and relief of the horrible symptoms in all. If there were no greater promise to these patients than the relief of symptoms this would be a sufficient cause for referring them to the radio-therapist for treatment.

In the management of these cases the

Roentgen ray is by far the agent of choice. The intensive deep plan of therapy should be administered using a 9 1-2 inch spark gap, 5 m. a. of current, a 10 inch skin target distance and not less than 6 mm. of aluminum as filters. The entire surface of the chest, anterior, lateral and posterior should be treated through small portals of entrance, about 8x10 cm. and each area given the full skin tolerance dose which is from 9 to 15 minutes time of exposure. This technique permits one to crossfire the entire chest through not less than 7 skin surface areas and will deliver 90% of an erythema dose to a depth of 10 cm. (Boggs). It has been proved experimentally that 90% of an erythema dose is sufficient to kill cancer cells.

The Roentgen ray treatment in these cases should be supplemented by electrocoagulation and radium. Radium embedded into small tumors, recurrent nodules and the axillary lymph nodes is a valuable adjunct to the x-ray treatment in these cases.



No. 3. Metastases in the right lung following a mixed cell sarcoma of the thigh.



No. 4. Metastases in the lower lobe of right lung following surgical removal of the right breast for squamous cell carcinoma.

#### **Anteoperative and postoperative prophylactic treatment in cancer of the breast.**

Dr. William J. Mayo, in his presidential address before the Clinical Congress of the American College of Surgeons, October 20, 1919, advocated anteoperative radiation in the following words:

"Radiotherapy has justly achieved a reputation in the postoperative treatment of cancer. It would appear, however, to have its greatest field of usefulness in preparing a malignant area against wound grafting during operation and its ability at least temporarily to reduce the vitality of the malignant cell. Radiotherapy, whether applied as radium, x-ray, or heat, sickness malignant cells beyond the area of destruction. During this period of cell sickness their resistance is reduced and operation is most efficient; but operation should not be delayed after radio-therapy, since the period of increased cell vulnerability is short and the connective tissue development, which interferes with subsequent operation, is rapid. By properly combining radiotherapy with surgery we can increase operability, lower mortality, and increase percentage of cures. Radio-therapy destroys cells for a certain distance, but cells are sterilized at a greater

distance, so that their reproduction is checked, and connective tissue is caused to develop which acts as a barrier to the further extension of the malignant process."

Halstead found that 32.4% of the cases operated died of metastases when the axillary lymph glands were negative microscopically. When the adjacent lymph nodes were involved, he found that 80% died of recurrence and metastases.

Dr. H. A. Everett, (Surgeon) states that "given the chance, a radical operation without subsequent irradiation or the removal of only the cancer focus with irradiation, certainly I should choose the latter alternative for myself."

Since the mortality rate in cancer of the breast treated only by surgical methods is so appallingly high, even in cases where there is no involvement of the axillary lymph nodes, and since we know that radiotherapy kills many malignant cells, lowers the resistance of many more at a greater depth and closes lymphatics, it is unquestionably true that the present mortality rate can be materially reduced by anteoperative and post-operative prophylactic radiotherapy.

My experience in giving anterooperative





No. 5. A. Lympho-sarcoma involving the cervical, axillary and inguinal lymphatic glands.



No. 5. B. Three weeks after first x-ray treatment.

treatments in these cases has taught me that there is a misunderstanding by some of the surgeons as to the time that should elapse after the anteoperative treatment before operation. This period should be about three weeks so that lymphatic blocking, the most essential feature of the treatment, may be accomplished.

The technique of postoperative prophylactic radiotherapy should be just as thorough as that described for inoperable, recurrent and metastatic cases.

#### Cancer of the Cervix.

Cancer of the cervix when seen by the surgeon or gynecologist is practically always inoperable, the percentage varying from 85 per-cent to 93 per-cent.

"Abdominal radical panhysterectomies for carcinoma of the uterus are followed by recurrences of about 60% during the first year and in an additional 15 per-cent during the second year following operation." (Henry Schmitz).

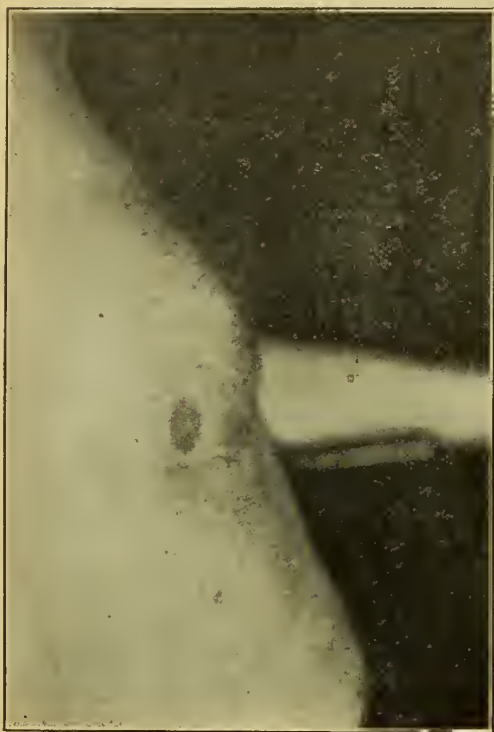
Schmitz also states that in a series of 165 cases of uterine cancer, twenty were con-

sidered borderline cases. Thirteen of these were subjected to combined surgical and radiological treatment while seven were treated only with Roentgen and radium rays. His results seem to indicate that the patients treated with rays fared better in both immediate and remote results than those treated with a combination of surgery and rays.

Warnekros reports a series of 119 cases operated upon 1911-1914 and not followed by prophylactic radiotherapy. Sixty-six or 55% died of recurrence and metastases. From 1914-1916 a series of 55 cases were operated upon and treated by prophylactic radiotherapy—only eleven or 20% died of recurrence.

Malignancies of the uterus can be more adequately treated by means of radiotherapy than any other organ of the body on account of its accessibility to radium applications supplemented by deep x-ray treatments from the overlying skin surface.

Radium applied in the cavity of the uterus and embedded into the walls of the cervix



6. A. Regional lympho-sarcoma involving the mediastinum. Note bulging of anterior chest wall caused by pressure of tumor.



6. B. Photograph made of patient after two x-ray treatments.



6. D. Radiogram of chest of patient after first x-ray treatment. Tumor much reduced in size evidenced by relief of pressure symptoms.



6. E. Radiogram made of patient after second x-ray treatment showing further reduction in size of tumor.





6. C. Photograph showing front view of patient after treatment.

combined with intensive x-ray treatments will, according to our present evidence, destroy cancer cells at a greater distance than the knife is capable of removing them.

In inoperable cases where the cervix is friable and the uterus fixed it is not possible to apply radium into the cavity of the uterus or embed it into the walls of the cervix but the application may be made in contact with the cervix if protection is afforded the bladder and rectum. This, followed by deep x-ray treatments, will alleviate pain, retard the progress of the malignant process and control the hemorrhage and offensive discharge, thereby prolonging life and affording comfort to the hopeless recurrent and inoperable cases.

#### Lymphosarcoma.

Lymphosarcoma may be general, involving many lymph glands in different locations or it may be confined to regional lymph nodes and adjacent structures.

The results obtained by radiotherapy in this form of malignancy are much better than those accomplished by any other method or

treatment. The Roentgen ray is more effective than radium on account of the number of areas to be treated when the disease is general and the depth of the glands when the disease is regional in character.

The rays should be administered through many portals of entry, employing a deep plan of therapy.

Following are statistics of malignancies of the types considered in this paper treated by me during the past three years:

	Number	Cure	Im- proved	Dead	No report
1. Basal cell epithelioma.....	16	13	2	1	
2. Epitheliomas of Mucous Membranes .....	16	5	6	5	
3. Cancer of breast with metastases or recurrence.....	16		6	7	3
4. Cancer of breast, prophylactic .....	16	12			2
5. Cancer of cervix .....	2		1	1	
6. Lymphosarcoma .....	3		3		
7. Cancer of breast, inoperable. ....	2		1	1	
Total .....	71	30	19	15	5

#### Conclusions.

1. In doing radiotherapy in malignant conditions a knowledge of histological structure, location, duration of lesion, age and size of the patient are important.

2. The treatment of basal cell epithelioma by means of fulguration, radium or x-ray shows as great a percentage of cures as surgery and leaves much better cosmetic effects. The cure is also accomplished without pain to the patient.

3. Epithelioma of the mucous membrane of the mouth may be treated by the combined use of fulguration, radium and x-ray with results as favorable as those accomplished by surgery and without a mutilating operation.

4. In cancer of the breast, inoperable, post-operative, recurrent and metastases, intensive, deep x-ray therapy supplemented by embedding radium into recurrent nodules and masses accomplishes a cure in some of these cases, prolongation of life in many, and relief of the horrible symptoms in all.

5. Prophylactic radiotherapy in cancer of the breast either anteoperative or post-operative has a broad field of usefulness, and if used more generally mortality rates in

these cases would be greatly reduced. All malignancies of the breast should have antepreoperative and postoperative prophylactic radiotherapeutic treatments.

6. Statistics in cancer of the cervix indicate results as favorable following radiotherapy as those accomplished by surgical removal.

7. The results accomplished in lymphosarcoma following x-ray treatments make this the method of choice.

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### Discussion

Dr. E. G. Jones, Atlanta: As Dr. Landham told you, I am familiar with the history of one of the patients, and the results seem not only in that case but in others I know of to be little short of marvelous. Of course, as the doctor says, we do not know whether these results are going to be permanent or temporary. In the case of the man whose picture he showed on the screen the result was perfect.

Let us review briefly the relation between the lymphatic system of the neck and other parts of the body inasmuch as carcinoma is under discussion. We are told that there are 800 lymphatic glands in the body, and of this number 300 are in the neck. When one operates on the neck for malignant disease, or for other conditions than malignant disease, if he runs up against the anatomical fact that there is no connection between the lymphatic system in the neck and the chest, he will have to surround himself with a good deal of confidence. It is anatomically true that all the lymphatics of the scalp, face and neck drain on the left side into the subclavian vein or thoracic duct before they enter the thorax. If a patient has a lesion in the neck with metastases in the neck, and if by operation

he gets rid of the disease in the neck, the surgeon need not feel that he is in danger from metastases in the thorax. On the contrary, if the lesion is on the right side, where there is no lymphatic drainage from the thoracic cavity to the neck, one need not be afraid there will be metastases from carcinoma of the stomach or carcinoma of the esophagus, and yet there is an apparent exception. You have seen clinicians who are very assiduous in examining the left supraclavicular glands in cases of suspected carcinoma of the stomach.

Our conception of the distribution of carcinoma I believe is entirely agreed to, and that is, the tissue intervening between cancer of the lip and submaxillary glands is very slight. We seldom take away cancer of the lip and submaxillary glands and leave tissue between, and the patient has no recurrence. There is one apparent exception to this, and that is, that in this involvement of the deep inferior cervical glands occasionally in which there is carcinoma of the stomach or the lower end of the esophagus there must be a thrombotic growth along the thoracic duct, as there is no reason for the growth in these glands or metastases in the ordinary distribution of cancer. So you see, to reach the ducts the pathological process must extend in a thrombotic way.

### SYPHILIS AMONG THE INSANE.

#### Some Observations at the Georgia State Sanitarium.\*

George L. Echols, M. D.  
Milledgeville, Ga.

For the last seven years, routine blood Wassermanns have been made on each patient on, or in a few days after, admission. The average percentage of positive Wassermanns for 1920 was 20%, and for 1918, '19, and '20 combined, was between 17% and 18%.

I have made it a rule to take careful histories, and to make thorough physical examinations on admission, and to try to predict which patients would give a positive blood Wassermann; and I have been astonished at my inability to make this prediction in the absence of neurological findings; this is most especially true among the females, as it is extremely rare that they have any knowledge of a syphilitic infection.

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.



In certain departments, it has been a custom to do a routine lumbar puncture on all admissions showing a positive blood Wassermann and on all admissions showing a negative blood Wassermann who have signs of neurosyphilis. In other departments, the spinal fluid has been examined when there were signs of neurosyphilis; however, recently it has become a fairly fixed rule to examine the spinal fluid on all cases showing a positive blood Wassermann.

The writer has recently made a careful study of the relations of the **blood wassermanns** and the **positive spinal fluid** findings in our admissions with the following results: Seventeen negative blood Wassermanns were found in 223 consecutive positive syphilitic spinal fluids; that is 7.6% of our active neurosyphilitics gave a negative blood Wassermann on admission. This was perhaps due to antisyphilitic treatment administered prior to their admissions. The colored male service admissions showed, for 1918, 1919, and 1920, two hundred and thirteen positive blood Wassermanns; and of this syphilitic group, one hundred and five showed positive spinal fluid findings; this gives 49.2% of the syphilitics, according to the blood Wassermann, showing a neurosyphilitic involvement. For the same period the white male admission positive Wassermanns showed 47.8% to have positive spinal fluid findings. The colored female service for 1919, and 1920, showed only 21.3% positive spinal fluids among the positive blood Wassermanns. Thus, from the above, it appears the male syphilitic is twice as apt to develop a neurosyphilis as the female. This is based on the study of 242 positive spinal fluids. From my study more than one-third of our syphilitics showed a neurosyphilitic involvement,—the writer is led to regard neurosyphilis as really the serious side of syphilis.

In a study of about 150 consecutive positive syphilitic spinal fluids in my own work, the writer found four neurosyphilitics who showed no neurological symptoms or signs of neurosyphilis,—two fluids indicating a cerebral syphilitic type and two of the paretic

type. One of these of the paretic fluid type was permitted to go untreated, and in four months he began to show neurological symptoms pointing to paresis. This observation led the writer to think of neurosyphilis as falling into three groups or classes: 1. A large group showing essential symptoms of neurosyphilis; 2. A very small group showing no signs or symptoms of neurosyphilis; 3. A moderate group showing vague or doubtful symptoms of neurosyphilis; and with this latter class in mind the writer reviewed 134 of his own neurosyphilitic histories and found that 15% of his neurosyphilitics fall into this "doubtful" group.

Let us question the meaning of the above two latter groups: positive spinal fluids and no neurological signs, or vague and doubtful neurological signs. The writer believes this to be a **stage through which all cerebral syphilitics and paretics pass in their early stage of development**, except neurosyphilitics of a vascular type in which we get a vascular brain disturbance with sufficient neurological symptoms; and in such cases we may reasonably expect negative spinal fluid findings. The writer regards the above as separate and distinct from the spinal fluid changes found associated with the secondary stage of syphilis.

When we face the fact that 7.6% of our neurosyphilitics show negative blood Wassermanns, and 15% or more of our neurosyphilitics show no signs or vague and indefinite signs of neurosyphilis, then the writer concludes that it is certainly wise to puncture each patient showing a positive blood Wassermann, and also to puncture each patient with a negative blood Wassermann who shows neurological signs of neurosyphilis.

If we are to treat a syphilitic, it is essential to know whether or not there is a syphilitic involvement of the nervous system, and this can be settled only by a study of the spinal fluid; and a study of the spinal fluid cells gives the best index to the inflammatory process.

The writer believes that syphilis should be treated **internally, externally and etern-**

ally, except in hopelessly advanced cases, and when in doubt as to when a case is hopelessly advanced—treat. Treat to cure the syphilis. Treat to prevent neurological involvement. Treat to cure early neurological involvement. Treat to arrest advanced neurological involvement.

Beginning in July 1920, and ending the 1st of April, 1921, the writer carried out two comparative treatments on two fairly well balanced groups of colored female syphilitics—starting with forty-four and ending with thirty-four. One group started with twenty-three and ended with eighteen; the other started with twenty-one and ended with sixteen. The medication of one group was Salvarsan, .3 to .4 gm. weekly and salicylate of mercury gr. 1, given hypodermatically into the gluteal muscles fortnightly. The other group treatment was started as a "Make shift" and consisted of bichloride 1/32 gr. K. I. gr., v, t. i. d. This consisted of about thirty weeks treatment in three ten weeks series. At the end of each ten weeks, the negative Wassermans were: first ten weeks 36% to 15.7%; second ten weeks 47.6% to 39.1%. And at the end of the third ten weeks 72.2% to 68.7% in favor of the bichloride and K. I. Thirteen of these groups were neurosyphilitics. Nine spinal fluids became negative, two partially negative and two unchanged. More negative spinal fluids were obtained by bichloride and K. I. This is given only as the result of an accidental comparative test. The best results should be obtained by a combination of the three drugs.

In closing, I wish to call your attention to the fact that more than 6% of our resident patient population in the Georgia Sanitarium are there on account of syphilis, which means an extra state burden of about fifty thousand dollars annually. As loyal Georgia physicians, help us to lighten this state burden. Repeating a former statement, "treat your syphilitics internally, externally and eternally." If you will "Do away with syphilis, we will have rooms to rent in the asylum."

#### Discussion.

DR. STEWART R. ROBERTS, Atlanta: I have enjoyed this paper very much, and I am glad to see that real scientific work is being done at our state sanatorium at Milledgeville. It is the best field for scientific work in the State of Georgia.

Dr. Echols has raised an interesting question. In the first place, the present adoption of the spirocheta pallida in the dermatrophic and neurotrophic lesions. In a case of syphilis which is caused by the dermatrophic spirochete, this organism tends to cause the pathology in the skin and in the viscera as distinguished from the nervous symptoms. The neurotrophic spirochete, on the other hand, tends to concentrate and localize and cause pathology in the nervous system which Dr. Echols assumes to be clinically neurosyphilis. He establishes and confirms some of the former syphilitic doctrines since the Wassermann has come into use, namely, there may be syphilis with a positive blood Wassermann. There may be syphilis with a positive blood Wassermann and negative cerebrospinal Wassermann. In the next place, a point which he did not mention, there may be clinical syphilis with a negative blood and spinal fluid Wassermann. You will notice that he bases his paper practically entirely upon the presence or absence of the Wassermann. It seems to me, that he has a wonderful field for more and more papers in which he could take up the clinical symptoms in insane syphilitic negroes. In other words, the clinical symptoms of neurosyphilis. He brings out further the most astonishing point, and it is certainly true, that we may have advanced neurosyphilis with the absence of a positive blood Wassermann. He makes a further plea, and we fully agree with him, that in cases of doubt we should do a lumbar puncture. We believe in it so thoroughly that we are doing lumbar punctures in our offices. We are doing them painlessly. The patient has no bad after effects, and we feel they can walk out of the office and go home without danger. If there are any symptoms following lumbar puncture, we take these patients and raise the feet or head for twelve minutes. But in cases of doubt we should do a lumbar puncture. We have trained ourselves to do it so accurately that we can do it without pain to the patient. I think we can do it so painlessly that a doctor would not know that we had done it on him, and that is a fair enough test. Dr. Calhoun used to hold as one of his fundamental principles in the persistent treatment of syphilis that a liquid solution of some form of mercury, with iodid of potassium should be used, and Dr. Echols seems to bear out that principle.

We do not concede that a well established case of tertiary syphilis of the dermatrophic or neurotrophic type is ever possible of absolute therapeutic cure. We believe that primary or secondary syphilis can be cured, but we do not believe that tertiary syphilis is possible of absolute cure, that is, with the death of every spirochete in the human organism. I can confirm Dr. Echols' therapeutic conclusions. We once



saw one neurosyphilitic with a four plus positive Wassermann in the spinal fluid, who had received 18 salvarsan injections, walking around in apparently good health, and yet the Wassermann in the spinal fluid was still four plus positive.

DR. DANIEL S. MIDDLETON, Rising Fawn: The paper just read was indeed very interesting, and I have been wondering if the profession in general could not get a lot of information from the source we have just gotten this information. We know that the majority of mental disorders come from our syphilitics and our state institution is prepared to investigate them.

I listened with much interest last autumn in Washington to the proceedings of the Institute of Venereal Disease Control and Social Hygiene, which was held under the auspices of the United States Public Health Service. Dr. Fordyce, of New York, and Dr. Stokes of the Mayo Clinic participated in the proceedings. Dr. Stokes in outlining his treatment and giving his records mentioned the results of treatment from the use of salvarsan, mercury and iodids. Dr. Fordyce laid great stress on salvarsan, and beginning with a positive blood Wassermann and going on, he emphasized the early appearance of neurosyphilis in some cases. Although patients had been given salvarsan and had received the active treatment by salvarsan, there was the early development of neurosyphilis in some of these cases. The cases of neurosyphilis were confirmed by the gold test and by a Wassermann of the cerebrospinal fluid.

Dr. Fordyce made mention of a frequent error in diagnosis, particularly of early neurosyphilis in tabetic cases. This was the girdle or gastric pain, saying that these cases were often mistaken and were operated on for gall-stones and ulcer of the stomach, when a little further on they developed neurosyphilis in its early stages, and his record shows in many cases the early development of tabes, some in less than one year. These patients first developed anesthesia of certain areas, with bladder symptoms. Some of them were treated for gastric pain without other symptoms existing for a long time. Without a blood or cerebrospinal fluid test, the casual observer would not consider it a case of neurosyphilis.

Dr. Stokes emphasizes the value of the insoluble salts of mercury, and that there should be no insoluble salts given in certain conditions of the eye of syphilitic origin. But he recommends very strongly the indispensable use of iodids in these cases and the soluble salts of mercury.

Dr. Fordyce in his lectures spoke very pessimistically of the use of salvarsan until you get a negative Wassermann.

DR. E. C. THRASH, Atlanta: We either have more neurosyphilis at the present time than the world has ever known before, or we are developing better diagnostic acumen. The reason we do have more neurosyphilis than we have had before is because we have pinned our faith to the arsenical preparations to the neglect of the standard remedies mercury and potass-

ium iodid, and until we get away from this we will continue to have more and more neurosyphilis. We must learn gentlemen that the arsenical preparations do not cure syphilis after the granulomata have been formed. My opinion is that the arsenical preparations have never cured a single case of syphilis. The arsenical preparations are all right for the symptoms and for clearing up the acute disturbance, but unless we treat our cases with iodid of potassium and mercury, we will not cure them.

Neurosyphilis is one of the most important and the hardest disease to cure with which we have to contend. We feel so helpless. Our clinical knowledge has rather been kept in the background and we have depended too much upon the Wassermann. I want to say that the Wassermann test is the most efficacious of any of the laboratory tests probably that we have—certainly one of the most efficacious, but its greatest inefficiency is in the diagnosis of neurosyphilis. Unless we depend upon the clinical aspect of the case we will often go afield. We should make use of the Wassermann test, but when we find a negative Wassermann from the spinal fluid, we must not say it is not syphilis and treat the patient for other trouble. When we do make a diagnosis of neurosyphilis we must get away from depending upon the arsenical preparations to cure it. We have got to give mercury and potassium iodid, and these two drugs will improve this condition. It does not cure it, but it will prolong the patient's life, improve his health, make him more efficient, and he will live many years of usefulness with intelligent treatment, and intelligent treatment is not giving arsenic.

DR. THOMAS R. WRIGHT, Augusta: While I have had little to do with syphilitic troubles in the last ten or twelve years, I am glad to bear out the testimony which has been given in regard to the use of bichlorid of mercury and iodid of potassium. It has been a routine rule with me after using salvarsan to put these patients upon this particular mixture, and I have seen it do a wonderful amount of good. I, like some others, do not believe I may conscientiously say that syphilis is ever cured, but by a combination of these measures you cannot do any harm.

There is another question I would like to bring up, and I say it in all kindness and in all truth, namely, the mental clinic at the Georgia State Sanatorium is not being utilized by the profession of the state as it should be. When Dr. Echols told me some months ago what he was working on, I bade him God-speed in his work. The members of the profession in Georgia should and have the opportunity of seeing what is being done in the various laboratories connected with that institution. The four thousand and odd patients there give you ample opportunity to study this most terrible disease as well as one of the causes of insanity. Remember that for a long time insanity was placed among the unknowable of diseases, up to now we have accomplished but little in the relief and cure of insanity, so to speak. However, something is being done. So let us hope for

better results in the future.

Let me repeat again, you will find a visit under the present conditions of that institution one that will more than repay you.

DR. JOE P. BOWDOIN, Adairsville: I want to thank Dr. Echols for his excellent paper. It showed the thoroughness of the work that is being done by our state institution. I appreciate the work they have done there, and I have used the statistics in my various talks in meeting different groups of people in our state to convince them of the need of something being done to control venereal diseases.

I should like to call attention to the fact that our institutions are costing the taxpayers of this state an immense amount of money, and one of the best arguments we have to reach the people with is to show that the taxpayers are paying the heaviest toll for the care and treatment of these venereally infected people. Syphilis of the brain is costing in the neighborhood of \$250,000.00 a year. That is but one phase of the problem.

I rather think 5 grains is a small dose of iodid of potassium. I would like to know whether Dr. Echols has experimented with larger doses and if so, what his results have been. Above all things, we should depend upon the Wassermann test in treating syphilis, but not neglect the clinical side. We should depend upon the clinical symptoms. A Wassermann is a good thing whether the patient has syphilis or not, but do not neglect the patient while you are finding out. If you are in doubt, treat him. Do not wait for symptoms of neurosyphilis before you treat syphilis. When you wait for this stage, in my own experience in following these cases in the studies I have made along these lines, it is almost hopeless.

The institution at Milledgeville can be of great service to this state and to the practitioners of medicine in this state if we could get from them statistics like Dr. Echols has prepared for us this morning.

I do not know whether it is true now or not, but at one time we were not allowed to hold autopsies there.

\* DR. ECHOLS: We have always been able to hold autopsies.

DR. BOWDOIN: I understood at one time you could not. I was informed by one of the members of the Board of Trustees of the institution you could not do so.

DR. ECHOLS: You have to get permission.

DR. BOWDOIN: Autopsies on all cases should be held and the information gained given to the profession.

I wish I could discuss this paper in greater detail, it is one of the most thorough papers and best worked out of any contribution along this line I have had the pleasure of listening to.

DR. GEORGE L. ECHOLS, Milledgeville. (Closing): I thank the gentlemen most heartily for their remarks in regard to the work we are doing at Milledgeville. It is not our institution; it is a state institution and belongs to you. It is your money

that is running it. We want you to come down and see us. The whole institution is open to you.

I am intensely interested in the conditions we have to face among the insane. I made a calculation separately as to the number of resident population which is there on account of syphilis. Our figures may be wrong, but we have figured it at about 6 per cent. We have more syphilis in the southeast than in any other section of the country. Dr. Donaldson investigated the entire United States, and in doing so he wrote to each one of the institutions, both public and private, and asked two questions. First, what percentage of your commitments is due to syphilis? Second, what percentage of resident population is due to syphilis? The answer to the first was 10.3 per cent, and the average resident population on account of syphilis was 3.9 percent, or practically 4 per cent. We have figured the resident population in the Georgia State Sanitarium as due to syphilis correctly, we think, however, we may be wrong. There is one thing sure, if we get rid of syphilis, we will have rooms to rent in our asylums.

### OUR MILK PROBLEM\*

Linton Gerdine, M. D., Athens, Ga.

With the approach of summer the pediatrician has a feeling of dread. All thru the winter he has been working to show the value of cow's milk as a food, only to have his efforts shattered by a few weeks of hot weather and an outbreak of infectious diarrhoea.

McCollum in "the Newer Knowledge of Nutrition" says: "It has become evident that milk is the greatest factor of safety in our nutrition and it is certain that we could not have accomplished what we have had we dispensed with milk as a food. There can be no doubt that there is a great lack of knowledge by the people generally as to the importance of milk and other dairy products in the diet. There is no substitute for milk and its use should be distinctly increased instead of diminished, regardless of cost. It has a value as a protective food improving the quality of the diet, which can only be estimated in terms of health and efficiency.

"Milk is without doubt our most important food stuff. This is true because the composition of milk is such that when used in combination with other food stuffs of either animal or vegetable origin it corrects their dietary deficiencies."

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



We find that nutrition classes have been springing up all over this country in the past year or two, and our medical journals as well as the popular magazines of the country are filled with articles on the subject. Look them over and see what food is particularly stressed. MILK. In a private school in my city a large number of underweight children were found. A morning lunch of which the most important article was a half-pint of milk, was started with results as pleasing as they were surprising to the parents of these children. This same food will be found filling the prominent place in the diet in various phases of adult life, both in health and disease. A glance at the diet list for almost any illness will show milk in some form as the article most used. Can you think of any food more necessary in the diet of a nursing mother? If it is true that milk is so important in the diet at these different stages of life, how much truer that in infancy milk is indispensable!

All mammals, no matter what their food in adult life, whether carnivorous or herbivorous, require milk in the earliest stage of life. What are the essential requirements for the food of an infant? First, it should contain the proper elements to maintain nutrition and allow for growth. Second, it should be digestible. Third, it should contain the proper quantity of food (which is best estimated by caloric standards). The proper elements are; proteids, which are essential for cell construction and to replace nitrogenous waste; fats to save nitrogenous waste, supply heat and energy and add to the body weight by storing up fat; sugars to supply heat and energy and to replace fat waste in the body; mineral salts to take part in bodily structure; water; and the Vitamines, food essentials which influence metabolism and prevent certain deficiency diseases. These are present in human milk and FRESH cow's milk.

As to digestibility, nature has provided the gastro-intestinal tract of the infant with the secretions necessary for digesting the food elements in the form and proportions most nearly resembling the mammillary secretions of its mother. So similar food from one animal usually requires some modification to make it suitable

for use by another. Fortunately the capacity of the infants' digestive tract has a fairly wide range. The quantity of food given may be varied to fulfill the requirements of proper dilution and still supply sufficient fuel (calories) for energy and growth. This must be regulated by calculating the caloric value of the food, remembering the "Nutrition-Ratio."

Whole cow's milk contains all the elements of nutrition and combines them in readily digestible form in the proportions of a balanced ration. Hence its use as a substitute for mother's milk for infants, as an important component in the diet of children, as a special diet for invalids, and as a considerable portion, directly or indirectly of the diet of all adults. Its value in these respects is such that it must be considered a necessity of civilization, being in this sense a universal food. About one-sixth of the total food of the average American family is furnished by milk and its products.

The development of Pediatrics as a specialty and the increase in the number of physicians taking up this work was largely due to studies in methods of artificial feeding. So many babies were being artificially fed and the methods of preparing various foods became so complicated the general practitioner did not feel that he had the time to worry over these problems and encouraged specialization in this line. Of course it is recognized that there are many other advantages in having physicians especially trained in the examination and care of infants and children, but the feeding problem was the most emphasized. Now for a long time the pediatricians have been doing all in their power to overcome the tendency towards artificial feeding and are making every effort to encourage breast feeding. They realize that no artificially prepared food can ever equal that food which nature prepared and intended should be used. Mortality statistics have long shown that the breast fed baby was far safer than that deprived of its mother's milk. In spite of this knowledge physicians have been far too lax in allowing breast feeding to be stopped on very slim excuses. It is often surprising to find that the physician who realizes the great difficulty of artificial feeding will stop breast feeding for the most trivial disorder.

Sedgwick and his co-workers for several years have been making a most praiseworthy effort to demonstrate the great possibilities for encouraging the continuation of breast feeding and even the possibility of the re-establishment of nursing which has been discontinued—after a surprisingly long time. Having found that even small amounts of breast milk are superior to all other foods and that by stimulation the function of the breast can be greatly increased, they have urged complementary feeding as the best means of bringing about the desired results. This idea has fortunately become very popular and is being generally accepted. There is now no reason why about ninety per cent. of mothers should not breast feed their babies—partly if not exclusively.

Of course breast feeding cannot be continued indefinitely. There comes a time in the infant's life when other foods must be added. Exactly when this time arrives is a matter of individual opinion. Milk however still continues to be the food of greatest value and must form the largest part of the diet, cow's milk replacing that of the human mother. Also there are some unavoidable circumstances when breast milk is not available and some other form of milk must be used, cow's milk is best and most convenient. The question is, how prepare it?

With the development of numerous complicated formulae for the preparation of special types of milk and the idea that "per cent." and "caloric feeding" were methods rather than controls, many physicians became discouraged and rather than attempt the troublesome figuring out of formulae, took the easier way of using prepared foods or canned milk with directions already worked out by the manufacturers. "The so-common and wide spread employment of the proprietary infant-foods is probably one of the most pernicious factors of the time in the feeding of infants, as indeed it has been for years."

"The proprietary foods are unreliable and unnecessary: Unreliable because they are never the perfect substitute for mother's milk—in spite of the claims of the manufacturers: Unnecessary because it is rare that they cannot entirely be dispensed with. Moreover, in the case

of those intended to be used without the addition of milk, the element of freshness, so important in infant nourishment, is lacking; while in the case of others the question arises, why use them at all if fresh cow's milk must be added in any event? They also have the additional disadvantage that the ingredients bear a fixed unvarying relationship to each other, and the ready changing of these which modern infant feeding considers indispensable, is an impossibility. It is true that many infants have done well upon commercial foods after some milk modification had failed; but they would almost certainly have grown as satisfactorily without them and with much less risk. What they needed was a proper milk-modification. There can be nothing of advantage in a proprietary food which cannot be equally incorporated in a home made modification, and at much less expense. It is still more true that not only have countless deaths arisen from their use but that countless infants have suffered from rickets, scurvy and severe gastro-intestinal disorders as a result of their employment. Cases do occasionally occur where the temporary use of a proprietary food may be a necessity because nothing else can be obtained or for some other unusual reason." There are a number of preparations on the market consisting almost entirely of starch, or some form of sugar or of protein, and claiming nothing else which may be used whenever the addition of one of these substances to milk mixture is to be employed.

There have been recommended a very large number of special formulae to which the names of the physicians first describing them are often attached. It must be remembered that modern scientific pediatrics is opposed to the use of any one preparation as a routine feeding. Rather must a mixture be modified to meet the needs of the individual case. There is a very definite value to some of these various special types of formulae as Eiweiss or albumen milk of Finklestein, Engle, Muller, and Schloss and others, and the Schloss and Friedenthal formulae for infants, but they are too complicated to be made in the average home and can only be used in hospitals or where milk laboratories are located. Every one now realizes that "per cent." and "calories" are not terms to be feared



but are merely means of checking up and controlling any simple feeding—and the methods of calculating these values are really very simple. Nor is it necessary usually to worry over “top-milk” and “cream” mixtures, which are very variable under the manipulations of the untrained mother. All that is really required is simple modification of milk of good quality and CLEAN, and a little careful attention by the physician to determine if the various elements are being properly digested and are being given in sufficient amounts to furnish proper nutrition and promote growth.

Why if this is so simple has there arisen such a fear of fresh “sweet” milk—cow’s milk? Answer with the question; What are the usual digestive disturbances and diseases we find in children who have been receiving cow’s milk? The most dreaded are the infectious diarrhoeas, colitis, or whatever you wish to call them, tuberculosis, septic sore throat and other infections. All diseases caused by dirt. Infections which the milk has been the means of carrying, but not the cause. Dirt and disease are the two great perils of our milk supply. Dirt from the cows giving the milk, and dirt from the human being by whom the milk is handled, and disease from both bovine and human sources are distressingly common in the milk upon which we feed our infants. To this cause more than any other must the enormous mortality from intestinal diseases among bottle fed babies be attributed. In every case where there is impure milk the failure of human intelligence is responsible. When milk is contaminated man is to blame, and not the humble animal from which the milk comes. In its original state, as contained in the udder of the cow, the milk is pure and sweet and free from all foul and dangerous matter, assuming that there is no disease in the milk gland or udder. Dirt and manure particles from the flanks and udder of the cow, hair and dandruff from her hide, the manurial dust of the stable, the questionable hands of the milker, the unclean milk pail contaminated with the decomposed dregs of the previous milking, or rinsed with polluted water, the unsavory straining cloth, imperfectly cleansed pans, ever hungry flies, further handling in process of bottling, bottles and other utensils of

doubtful cleanliness. These together with lack of proper cooling and sometimes many hours of transportation, are some of the details which demand the attention of the milk sanitarian. It is possible to make theoretical distinction between various forms of contamination, and it is possible to devise practical means which lay stress upon the more dangerous; but both decency and experience aver that we should avoid all forms of contamination. “Milk may be safe because it is boiled but may be indecent because it is filthy.”

This is our great problem and enormous responsibility. Shall we allow the most valuable food we possess to be useless and even dangerous because we do not teach and enforce the proper methods for producing and handling CLEAN MILK?

In the large cities—particularly in the North—the milk problem has been vigorously attacked for years, with results which have proven the value of enforcing the proper care of milk. There strict regulations, inspections, and education of the public have brought the quality of the milk to a degree of safety that there need be no fear of using it. The milk question is not new, in 1859 Boston established official milk inspection. Our Southern cities are realizing the need of strict regulations, tho as yet they are not enforced with sufficient vigor to insure safe milk. Nor has a broad enough educational campaign yet been carried out. The Atlanta Board of Health publishes for those interested, a bacteriological report of milk for sale there, yet physicians who concern themselves with making sure that their patients have the proper quality of food, often have much difficulty in finding milk of a grade that they can comfortably recommend. In another city of our state a pædiatrician admits that he recommends that all his patients’ milk be boiled (for children under two years of age) in summer, which shows he doubts the quality of the milk furnished in his city.

The medical profession has played a large part in the promotion of sanitary milk movement. It is the medical observers to whom the public turn for knowledge of the relation of milk to the individual. In the case of the infant, the invalid, the convalescent the doctor’s

choice of milk is important, and regulation of milk must therefore harmonize with medical requirements. The family physician as a part of his duty to his patients should be in a position to recommend milk produced with proper sanitary precautions, and if he be deficient the consumer has recourse to the health officials, who regard it as a pleasure to supply information as to what is good food and where one may go to obtain it. It is to the health officers, who are doing such efficient work in our counties under the Ellis Health Law that we must look for great aid in teaching and enforcing milk sanitation as they are in constant contact with our rural districts.

One of the sources of trouble in the milk industry is that the great bulk of milk comes from the small farm and there is regarded as a by-product. The small farmer keeps a few cows for his personal use. If the yield is more than he needs he sells the excess. The farmer gives the subject small attention and finds it unprofitable to comply with the exactions of modern sanitary requirements. The dairy industry is a special industry requiring technical skill of a high order and must become a specialty like other trades and professions. We do not have large dairies here, nor the plants for producing large quantities of milk; we must get at our problem in a somewhat different manner. We must show each individual producer, whether he sends his milk to market or keeps it for his own family use, the grave perils of any but absolutely clean milk. When he has been properly impressed with this he will search for methods of overcoming this danger and we must be ready to show him how it can be done—and done economically. Fortunately by the exercise of cleanliness and a little ice, any farmer can produce milk that will come within the sanitary requirements of market milk, with very little increase in expense.

There are certain requisites which must be insisted upon in order to make cow's milk a safe and satisfactory food. First of all it must be clean; and cleanliness with regard to contamination by bacteria is important. There should be an absence of pathologic germs and but a small number of those of other sorts. The milk should be tampered with in no way, as by ad-

dition of preservatives, the removal of cream or the addition of water. The milk should be kept constantly at a temperature not over 45° F. from the time it is bottled until it is prepared for use. Uniformity in strength is desirable where the milk is to be used for infants.

Uncleanliness can be successfully combatted whenever enough civic interest has been awakened to recognition of peril and remedy to insure the earnest and intelligent co-operation in remedial efforts of all forces in society. Health authorities must adopt improved methods of sanitation and with legislative sanction and support, establish rational regulations. Legislators must recognize the necessity of legislation authorizing such regulations. Agricultural authorities must advise the farmer in the method of producing sanitary milk efficiently. The farmer must welcome this assistance and make use of all possible means of improving his methods and management. Parents cannot accomplish the task alone unaided; physicians can not do it; farmer and milk dealers can not do it; it can not be done by the governing bodies of our cities and states, or of the nation itself; but all these forces combined, earnestly and wisely working together can do it and so bring about one of the greatest triumphs of life over death, of health over disease ever accomplished in the whole stretch of human history.

When I started this paper, I thought that the question of sanitation and hygiene was our greatest problem, as that was what had impressed me most. But when I started investigating I found there was another problem which tho in no way minimizing the former was nevertheless a most vital question. I went to the library of the State College of Agriculture to see what the dairying status was in this section of the state, and to my surprise I could find no reports on this industry in Georgia. At the dairy division of the College they informed me that there was scarcely any dairying done in this state, that a large quantity of butter, cheese and even sweet cream was brought in from other states. Furthermore the County Agents reported that in many counties the milk supply was absolutely inadequate for home use of the families. During the past year these county agents have been especially interested in



nutrition work—and I hope the physicians of the various counties have co-operated with them in this important work. Of course they stressed the value of milk—for reasons which we have already noted—but they found the available supply of milk woefully inadequate. Fortunately they have stirred up an interest in this question and are already getting good results.

Milk production may be called an essential function of the ordinary farm, the dairy cow makes economical use of roughage and pasturage, and returns the farmer milk for his own use as well as for sale. Furthermore, the waste of the cow stable has a large value as fertilizer.

The two problems fit in well together and offer a splendid opportunity for the physician. Use your influence towards the increase in use of this most valuable food, at the same time teaching the proper method of handling milk so that it will be always of value and never a danger.

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### CHOLECYSTECTOMY.\*

H. R. Donaldson, A. B., M. D., Atlanta, Ga.

In presenting this paper it is not my purpose to discuss differential diagnosis with reference to ulcers or chronic appendicitis, nor the indications for cholecystectomy in preference to cholecystostomy, but rather to describe a technique which is in no way original but which has been evolved out of suggestions received at various times and places over a period of years.

First:—The incision is of major importance and a number have been devised, all having for their object greater exposure, which has been obtained in each by lessening

the resistance offered by the rectus sheath. A very effective and simple incision is made by beginning immediately below the ensiform near the middle line, directed obliquely downward and outward to the right, so that on a level with the umbilicus the incision has passed to the outer side of the rectus sheath. This should include in depth all structures from the skin to and through the rectus sheath, but not the muscle. Beginning at the middle of this incision the muscle is separated in the line of its fibers throughout the length of the incision; when, on account of the oblique cut in the sheath, quite a wide separation can be effected. The advantage of this incision is that most upper abdominal work can be done through it and the appendix can usually be brought up and removed. This is quite a long incision, but a generous opening not only expedites work but overcomes one of the main difficulties of this operation, which is poor exposure.

Second:—Having opened the peritoneum we should examine systematically the abdominal viscera from the stomach to the pelvis, and at this time remove the appendix if indicated.

Third:—Grasp the fundus of the gall bladder with forceps, and separate the adhesions, which are usually present, down to the gastro-hepatic ligament. Just at this juncture it is well to reassure ourselves by palpating for stones in the hepatic or common duct. Putting tension on the gall bladder at this time will be of material assistance.

When the liver is small, deeply concave and situated high, it is occasionally helpful to pack above the liver, between it and the diaphragm, in order to depress and flatten it out, as suggested by Dr. Wm. Mayo. Packs should be placed from the stomach completely around to the liver beyond the gall bladder, extending down to the gastro-hepatic ligament, clearly exposing that structure to view throughout its length. Grasp with a second forcep that portion of the gall bladder which drops down over the cystic duct and exert traction upward and inward away from the liver. This straightens out the cystic duct and allows the finger or forceps to

\*Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.

be passed through the loose tissue between the neck of the gall bladder and the gateway of the liver. Now if the peritoneum covering the lower end or neck of the gall bladder be incised, with little effort, the duct can be drawn out directly into view and, if desired, traced down to the common duct without danger. After assuring ourselves that we have only the cystic duct it is caught with two forceps and cut across between them, the cut ends touched with iodine and the stump double tied with chromic gut. Then by exerting slight traction away from the liver with the two lower forceps, the intervening tissue up to the original opening between the gall bladder and the liver can be caught in one forcep, care being taken to place this as close as possible to the gall bladder; then free the gall bladder by cutting between it and the forceps. Tie this part of ligament before removing the forceps. We now with a continuous suture of plain gut cover over any raw surface. The stump of the cystic duct usually retracts beneath the peritoneum. The gall bladder is now attached only to the liver surface, and by incising its peritoneal coat we are able to do a sub-peritoneal removal; usually by gauze dissection leaving, an ample peritoneal fold on each side of the gall-bladder attachment, which is closed by continuing our suture from below. This removal is practically bloodless, should leave a dry field with no raw surface exposed, and does not, as a rule, require draining.

The reason for doubly tying the cystic duct is, of course, to prevent leakage of the bile before healing has been completed, and although this precaution had been taken we found that we not infrequently had considerable bile to show on the dressings. In casting about for an explanation of this we decided that the leakage occurred from our closing suture line along the gall bladder-liver margin, and by leaving sufficient peritoneum on each side in which to sew we not only give a peritoneal covering to the raw surface but obviate tension on the suture line and have apparently stopped bile leakage. In cases requiring cholecystectomy there is practically always so much hepatic congestion that it is remarkable how great a

quantity of bile will drain from slight needle punctures.

The abdominal wound is difficult to close and it is very unsatisfactory if the attempt is made to close the peritoneum separately, but it will be found comparatively easy if a double plain gut continuous suture is made to include the peritoneum, muscle and sheath on each side, followed by chromic interlocking suture in the sheath.

In conclusion I wish to especially emphasize, 1st.

A long oblique incision, starting high.

2nd.

Be sure of a good exposure before beginning the removal.

3rd.

Getting an opening between the neck of the gall bladder and liver.

4th.

Sub-peritoneal ligation of duct and gall bladder removal.

5th.

No drainage, unless absolutely necessary.

6th.

The first row of closing sutures to include the peritoneum, muscle and sheath.

By following this technique a rather formidable operation is converted into a comparatively easy one, and I have found that post-operative complications and difficulties are lessened.

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## ACUTE INFLAMMATION OF THE MIDDLE EAR IN INFANTS.

Ernest S. Colvin, M. D., Atlanta, Ga.

The occurrence of otitis media in infancy is principally favored by the anatomical conditions of the infantile auditory duct. Its great frequency is explained by the following etiological factors: (1) the tubal opening into the nasopharyngeal space; (2) the changes in the circulation following birth, together with hyperaemia and loosening of the tympanic, mucosa; (3) immaturity; (4) hereditary constitutional affections, such as scrofulosis, tuberculosis, syphilis, and descent from alcoholic parents; (5) traumatic injury before and during birth, with entrance of amnion or its constitu-



ents into the middle ear; (6) infectuous diseases, especially grippe, less frequently measles, small pox, chicken pox, diphtheria, scarlet fever, in the course of which coughing, sneezing, crying and vomiting lead to infection of the middle ear; (7) gastro-intestinal and cerebral affections, which lead to infection of the tympanic cavity from vomiting. The tympanic cavity of infants contains abundant mucous tissue and plenty of fluid in the first few weeks of life. Both are excellent culture grounds for invading bacteria.

The Eustachian tube of the new-born is remarkably short and wide, and the muscles are feebly developed. Nor can it be definitely denied that in some cases it is not completely closed at birth. Through these conditions infection of the infantile middle ear on the part of the pharynx is particularly favored. It may easily happen that the mucus present in the pharynx, aspirated fluid, etc., may enter the tympanic cavity of infants by deglutition and vomiting. In many cases otitis may occur from the fact that the penetrated mucus is at the same time the carrier of infection; in other cases the mucus entering into the middle-ear spaces may act as a foreign body, causing as such an inflammation which is changed into ulceration by secondary infection from the pharynx; indeed, many authors look upon infantile otitis as an infection due to the entrance of foreign bodies.

Suppuration is further favored by the fact that debilitated infants, who are particularly liable to infection, suffer from impaired respiration and deglutition, and that in tender and anaemic children accumulation of mucus or food remnants in the pharynx cannot be avoided. One of the principal causes of the frequent occurrence of the middle-ear inflammation in infants and young children is the frequency of faucial and tubal affections.

Furthermore, the recumbent position of nurslings is to be taken into account, as it favors irritation of the tube and consequently the middle-ear in disturbed deglutition or respiration, and at the same time fluids, coagulated milk particles, etc., may enter the tympanic cavity. Furthermore, there seems to be a possibility that, up to the age of two or three years, there

may occur spontaneous suppuration of the mucous tissue in the middle ear owing to general debility and anaemia. In these cases the micro-organisms which are always present in the nasopharyngeal tract, that cannot bring about a purulent inflammation in a healthy child, may lead to suppurative decomposition of the mucous tissue of the tympanic cavity, which is an easy prey to infection and purulent transformation, as explained above. This also explains why, in autopsies on infants, who died during the first months of life up to the end of the first year, suppurative exudates are often found in the tympanic cavity, and why the histological examination of these cases admits distinct demonstration of acute inflammatory changes of mucous membrane. Abundant inflammatory foci are especially found in the mucous tissue accumulated at the fundus of the tympanic cavity and in the attic.

#### **Peculiar Symptoms.**

I recommend examining the ear of infants and young children in all febrile affections, even in the absence of ear symptoms. The possibility of overlooking an inflammation or even suppuration of the middle ear is increased by the helplessness of the infant. It is not before the fourth month that infants direct attention to the possibility of an auricular affection by rubbing the ear, putting the hand to the head, crying whenever the ear or its vicinity is touched, and even avoiding to lie down on the affected side. Exacerbation of the pain in the ear during sucking often interrupts the feeding, the infant giving vent to crying. Up to that age, however, all motor reaction may be absent, and attention is aroused only by the occurrence of purulent secretion. This, however, occurs at a comparatively late stage, the tympanic membrane of the new born being thicker and more resistant than that of the adult. Sometimes it takes as long as one or two weeks for the tissue to become ulcerative, causing perforation and evacuation of the pus through the external meatus. Furthermore, the late occurrence of perforation is favored by the fact that the permeable tympanic cavity does not represent a uniform space, so that time is required for a sufficiently large quantity of pus to accumulate to be capable of powerfully

bulging out the tympanic membrane, stretching the tympanic tissue, and thus accelerating the purulent transformation and perforation.

Suppuration of the middle ear occurs less frequently in breast-fed than bottle-fed infants. There is sometimes danger of otitis in the former from unsuccessful sucking if both nares are occluded by pressure from the mother's breast and milk particles enter the tympanic cavity in swallowing.

A suggestive symptom of acute infantile otitis is the sudden onset of fever, in which the temperature reaches the highest possible degrees in the first few days. Temperatures up to 104 degrees and 106 degrees F. are by no means rare. The fever is of the continuous type, and return to normal or subnormal temperature is usually a sign of complications. In the first days of severe cases, chills and fever, sometimes accompanied by vomiting, will occur just before perforation. Apparently meningitic symptoms may set in, such as collapse, stupor, lagophthalmos, nasal respiration, sudden unrest, crying out, disturbed sleep, or sleeplessness. These grave manifestations sometimes disappear after spontaneous perforation or paracentesis, as soon as the pus commences to escape. Should they occur while purulent secretion is already established, they constitute positive evidence of meningitis with unfavorable prognosis.

### Otoscopic Examination

Formerly many authors considered otoscopic examination of the infantile tympanic membrane to be impossible. You can make the examination. Cleansing the external auditory duct from scales or cerumen has to be done most carefully, the infant's head being held perfectly quiet. After insertion of the speculum, the otoscopic examination can be facilitated by pressing it downward toward the base of the auditory duct. It should be remembered that the infantile duct consists only of the membranous part, that it becomes narrower as it approaches the tympanic membrane, and only widens in a kind of fissure immediately before the membrane. The latter inclines considerably outward, so that its postero-superior part is closer to the eye of the examiner than the an-

terior section to an even greater degree than is the case of adults. I may also state that the infantile tympanic membrane assumes a pink tint while the infant is in the act of crying.

### Diagnosis, Prognosis, and Course

With painstaking observation of the patient and careful otoscopic examination, there can be no difficulty in the diagnosis of the infantile otitis, provided the paediatrist considers the possibilities of its existence at a sufficiently early stage. The prognosis should be made cautiously. Relatively slight hyperaemia of the tympanic membrane by no means excludes the purulent character of the inflammation. After complete development of an empyema of the middle ear, the fever may abate or entirely disappear without perforation of the membrane, but spontaneous perforation may still occur later. It is advisable, therefore, to postpone the decision of the prognostic question, as to whether a perforation is to be expected or not, until either the tympanic findings definitely indicate the imminent perforation or the involution of the inflammatory manifestations is recognizable by a rapid reduction of the swollen membrane.

The prognosis is favorable in otherwise robust, well-nourished infants for both simple and suppurative otitis media. The organ will be completely restored without any impairment of the hearing acuity. In genuine inflammation of the middle ear and in otitis developing in the course of common colds, a permanent aperture need not be apprehended.

In debilitated, anaemic, under-nourished, rachitic infants there is some danger of acute otitis media developing into the chronic form, and in the most favorable contingency into healing at a later period, but with permanent changes remaining. This is particularly to be apprehended if the initial stage of suppuration has escaped attention or has been neglected. When the suppuration has become chronic, it soon leads to moist eczema and constriction of the auditory duct, with consequent retention of pus in the middle ear, ulcerous processes of the mucosa, formation of granulations and polypi, carious changes of the auricular vessels and osseous walls of the middle ear, with all their sequelae.



The prognosis is unfavorable in tuberculosis, and in infantile otitis and ulcerations of the middle ear caused by streptococcus mucosus. Endocranial involvement is rare in infants, probably owing to the fact that, after involvement of the mastoid, outward perforation underneath the periosteum occurs more rapidly than in older children or adults.

The treatment of infantile otitis hardly differs from that of otitis media in adults. Early paracentesis is important, as its omission may be responsible for the sudden development of a grave cerebral symptom-complex, or suppurative meningitis. The auditory duct requires the greatest care, the skin should be repeatedly anointed and the lumen kept free by thorough removal of the secretion and the macerated epithelial masses which accumulate in the form of small scales. Constriction or occlusion of the auditory duct by eczema, inflammatory precesses, etc., may considerably hinder the treatment and cause retention of the secretion, with incalculable consequences. In a protracted course repeated paracentesis is advisable. Extensive granulations may be removed at an early period; should they be allowed to remain, the disease will usually run a longer course and may even become chronic from proliferation of granulations. After the inflammation of the middle ear has been cured, it is often necessary to remove the considerably enlarged palatal and faucial tonsils to prevent recurrence of the inflammation.

### HIPPOCRATES.

H. C. Hardegree, M. D., Atlanta, Ga.

European Medicine, the so-called "Classical Period," began properly at the age of Pericles, and its scientific advancement centers around Hippocrates, 460 to 370 B. C.

Hippocrates' age is variously given by different authors to be from 85 to 109. He gave to Greek Medicine its scientific ideals. He lived at an age when Athenian democracy attained its highest development. Among his contemporaries were Sophocles, Socrates, Herodotus and Plato, with others not mentioned, all Greek physicians.

Hippocrates was born on the Island of Cos, at the beginning of the 18th Olympiad, of an Aes-

edepead family. He received his first medical instruction from his father, studied in Athens, and acquired extensive experience in travels and practice among the cities of Thrace, Thessaly and Macedonia.

The eminence of Hippocrates is three fold; he dissociated medicine from superstition and philosophy; he crystallized the loose medical knowledge at Cos and Cnidian schools into systematic science; he gave to physicians the highest moral inspiration they have. Before the Age of Pericles, the Greek physician was either an associate of priest in time of peace, or a surgeon in time of war. His knowledge of anatomy was mainly that of visible parts. Hippocrates studied anatomy in its minutest details, pulling away from his predecessors who knew only external parts. All that a man of genius could do for internal medicine, with no other instrument of precision than his own open mind and keen senses, he accomplished, and with these reservations, his best descriptions of diseases are models of their kind today.

Hippocrates introduced clinical medicine, ever on the lookout for sources of error. He taught the Coan physicians how to look for symptoms, having them go over them again and again until the real value of the clinical picture began to stand out of itself, instead of attributing disease to the gods or other fantastic imagination, like his predecessors. Hippocrates virtually founded the bedside method which was afterwards employed with such signal ability by Sydenham, Laennec, Bright, Charcot, and others. It was the use of his mind as a diagnostic instrument, together with his honesty, the elevated conception of the dignity of his profession, with his high respect for his patients that deservedly gave him the name of "Father of Medicine" and the reputation of the greatest physician of them all. He was called "the divine" by Galen, and the "father of medicine" by all who practiced the Hippocratic art.

The works of Hippocrates must be judged by their results. He described the bilious, malarial, haemoglobinuric fevers of Thessaly and Thrace, very much as the modern Greek writers have found them today, and it has been remarked that his clinical pictures of phthisis, puer-

peral convulsions, epilepsy, epidemic parotitis and some other diseases, might, with a few changes and additions, take their places in any modern text book. Of the forty-two clinical cases he has left us, twenty-five are reported as fatal, while unlike Galen, the author has nothing whatever to say about clever diagnosis, remarkable cures, or blunders on the part of his fellow practitioners. "He seems," says Billings, "to have written for the purpose of telling what he himself knows."

The works of Hippocrates are divided into four groups; the genuine; the spurious; the predecessors; the contemporaries and followers. The genuine include at least those remarkable clinical jottings, the aphorisms, the treatise on prognosis and epidemic wounds, dislocations, fractures and ulcers, and excursus on air, water and places, the latter being the first book ever written on geography, climatology and anthropology by medical writers, if we must accept the narratives of Heroditus, Hippocrates' contemporary, and one for whom Hippocrates had great respect.

The Physician's Oath, and the earliest and most impressive document on medical ethics, are not generally conceded a part of Hippocrates writings, yet both the oath and the law are so much in keeping with the ethical spirit of the great Coan, that they are usually included in his canon. In connection with this it will not be amiss to quote his Oath: "With purity and with holiness will I pass my life and practice my art. Whatever house I enter, I will go into it for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption, and further from the seduction of female and male, of free man and slave all things. In connection with my profession practice, I will not divulge, as reckoning they must be kept secret. While I continue to keep this oath inviolate, may it be granted to me to enjoy life and the practice of my art, respected by all men at all times, but should I trespass and violate this oath may the reverse be my lot."

In his ethical teachings he had a great influence on his profession, teaching that you must not only know how to be silent at the right time, but must lead a well ordered life, for it adds much to your good repute. Let

your disposition be that of honor; violence is not liked, even though it be of use. Wear an expression of sympathy, but not of vexation; do not become a burden on your patient by laughter or merriment.

The writings of his contemporaries and predecessors show that the dignity of physicians was based more upon his ability to predict clinical happenings, than upon his power to control them. To this end, Hippocrates instituted for the first time a careful, systematic and thorough-going examination of patients, including the facial appearance, pulse, temperature, respiration, excreta, sputum, localized pain and movements of the body. Among his clinical pictures is a "facies Hippocratica," the famous thumbnail sketch of the signs of dissolution to which Shakespeare refers in the case of Falstaff's death.

There is much in his surgical writings that is faulty and incomplete and not in accordance with modern practice, but they are the only things of value on the subject up to the time of Celsus. They separate essentials from accidentals, judge by the rules of reasoning and not by impulses and prejudices. Some of the greatest scholars, Littré, Allbutt and others, have pronounced the Hippocratic Book on Fractures and Dislocations and Wounds, given limitations under which it was written, equal to any similar work of a more recent date. "Dislocation of the shoulders," Hippocrates says, "are rarely inward or outward, but frequently and chiefly downward," and his methods of reducing are practically those of modern days. He was strong in his account of congenital dislocations, and reducing and bandaging fractures. He was the first to notice that a crooked spine often exists with pulmonary tuberculosis. In the treatment of wounds, he says that they should never be irrigated except with sterile water or wine, the dry state being nearest to the healthy, and the moist nearest to the diseased. The antiseptic advantage of extreme dryness was utilized in the avoidance of greasy dressings, and the efforts to bring the fresh edges of the wound into close proximity, sometimes by the use of astringents. He realized that rest and immobilization are of capital importance. He described the symptoms of suppuration, and



says that if medical dressings are used at all, they should be around and not on the wound, and the hands and nails of the operator must be cleansed. He gives the first description of healing by first and second intention. In his description of the operating room he lays stress on good illumination, posture of the patient, and the presence of capable assistants. He refers to trephining and paracentesis. He was the first to notice the succussion sound. The Cheyne-Stokes type of respiration is described in the case of Philiscus. He knew many drugs and their uses, but his scheme of treatment was confined principally to fresh air, a good diet, purgations, massage and hydrotherapy.

The literary style of Hippocrates is like that of the best Greek writers of the Classical Period, clear, precise and simple. The law, the oath, and the discourse on the "Sacred Diseases," are the loftiest utterances of Greek medicine, and whether due to Hippocrates or not, they represent the very essence of his teachings. The treatise which deals with the divine origin of epilepsy was the highest reach of free thought for centuries, and, had it been heeded, would have done away forever with the foolish idea that human ills are caused by gods or demons.

It was stated that medieval medicine was divorced from surgery, but Hippocrates saw internal medicine in the terms of surgery, and surgery as the very right hand of medicine. In him is embodied practical reason against shallowness and theoretical excess.

The usual portraits of Hippocrates represent a tall bearded man of venerable aspect. They are in no sense counterfeit presentations. It is highly probable that the physicians of that age wore their hair and beard as much like Jove and Aesculapius as possible, and were otherwise not lacking in the self-sufficiency that characterized the Greek of that period. We may therefore infer that the supposed portraits of Hippocrates are variants of the bust of Aesculapius.

## SOME ASPECTS OF ENDOCRINE THERAPY.\*

A. B. Patton, M. D., Athens, Ga.

As a vast amount of literature is accumulating on disorders of such ductless glands as we know and their treatment, it would seem wise to take stock, at times, of what has been discovered of real worth, and to examine critically the conclusions laid before us, if the study of these obscure organs is not to be brought into disrepute.

Among the investigators in this field there are three classes of whom we should beware: first, the charlatans who would attain fame and fortune quickly by a deluge of loose literary contributions, rather than by earnest clinical study and scientific laboratory investigation.

Secondly, we have a certain number of erratic enthusiasts—elderly gentlemen whose judgment and possibly, reflexes, are not quite what they have been—often men whose word is readily accepted because of brilliant records of past achievement in the profession, but who are not as keenly critical as they have been, of their facts and proofs, and deductions, and company.

The third class open to suspicion are the manufacturers who pile our desks with glib, positive assertions as to what their mixture number "42" will do in a condition of a "pituitary posterior minus and thymus plus"; and then tell us very positively how to diagnose this condition, perhaps citing some obscure author who has used "mixture number 42" on three ladies, all of whom are still living. Another manufacturer uses the chatty, patronizing method of approach—"Have you any pale women this morning? Give them super-spermin—they need it!" Personally, these leaflets affect me just as the bleary-eyed saloon loafer of olden days, who would sidle up and introduce himself with, "Well, Doc, how's business anyhow?"

The charlatans amuse us: the misled enthusiasts of real past worth are to be pitied, but the butcher's agents, when they pose as authorities are apt to mislead many and do indefinite damage.

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\*Read before the Eighth District Medical Association, Eatonton, Ga., Aug. 10, 1921.

The endocrine products appeal to us; there is something satisfying in the idea of using the exact preparation that the body needs when it is available; particularly as drugs seem so generally ineffective in these conditions, or rather, as we know so little of drug effect on the ductless glands in health and disease.

Diagnosis is our first and main trouble: we think that a gland is not functioning properly. Is its secretion normal? Or too much? Or too little? Part of the time or all the time? Or does it alternate between the two extremes? Numerous tests of gland function have been proposed, accepted for a time, and discarded as useless after more careful investigation.

When we have fairly determined what gland is amiss, its effect on other glands is to be considered, as these highly developed organs seem particularly dependent on one another. If the suprarenal gland, or part of it, is secreting too much, what is the effect on the pancreas? Or the thyroid? And why does it secrete too much? The gastric mucosa, the heart and the intestine do not automatically increase their work without some bacterial, toxic, or other cause. Why then should the thyroid or the thymus?

Another difficulty is our ignorance at present, of exactly the effect of gland preparations from another animal upon the corresponding human gland, normal or abnormal. Granting that a gland is producing too much internal secretion—a difficult thing to determine because the secretion IS internal—will the exhibition of this same secretion stimulate or lethargize the human gland? Will its effect be immediate or late? Will it be permanent or temporary? How will dosage vary the effect? And will the rules that apply to one gland hold good for another?

Also, are we justified in assuming that a large gland, neoplastic or not, produces a large amount of secretion? In acromegaly it is often assumed that the anterior lobe of the hypophysis is over-secreting—here we usually have tumor formation in this condition—but gland secretion is not increased in carcinoma of the stomach or prostate, or testicle. An adenoma may over-secrete but is the secretion normal?

Of the ductless gland preparations we know only one chemically which regularly supplies all

the effect of the normal gland in the human or animal, when given artificially: this is thyroxin; and we may say that endocrinology is built about the thyroid. One other preparation, the first to be isolated and identified, is adrenalin; probably the most consistently disappointing of all endocrine products.

It is conceivable that a gland product may have decided therapeutic value at some times of life and development, and at other times be ineffective. This seems to be the case with some ovarian preparations, which are more often effective during puberty and the menopause than during the middle periods. Their capacity for harm may vary in the same way. And fortunately, Nature seems to get around in time and attempt to restore people to normal with the aid of our extracts and mixtures, or in spite of them.

The intelligent use of drugs proceeds somewhat as follows: first, make a diagnosis of tissue diseased, of the effect of disease on that tissue, of secondary effects on other tissues, and then consider the object to be attained in both primarily and secondarily diseased tissues, by way of correction. Apply a remedy which will tend to correct the condition with a minimum of bad effect on the diseased tissue and on other tissue not involved. This remedy should be one whose preparation, activity, dosage and effect we know, in health and disease—how it works, when it works and for how long; and when and how it is eliminated or destroyed. How many endocrine preparations have we about which we can answer these questions?

Concerning the extracts of ductless glands which are available at present, we have little assurance that they are active, or identical with corresponding human gland products during life and health—or that animal glands do not deteriorate very rapidly after death, as most highly specialized tissues do. We know the structure of thyroxin, the active principle of the thyroid gland: how it acts or what it does we do not know exactly except that it will replace the secretion of that gland to any degree, in states of hypothyroidism, surgical or natural. Thyroxin, because of its obscure effect, its slow elimination, its cumulative action and potency, seems to me the most dangerous drug we know



in medicine, yet the crude gland preparations, of varying strength, have been sold directly to the laity for years in the form of proprietary obesity cures. Also, many cases are on record of the use of this extract to diagnose mild hyperthyroid states, with the result of converting them into frank, advanced exophthalmic goiter. The fatalities from this so-called test are not usually reported.

We know something of adrenalin, its quick but fleeting, stimulant effect on the sympathetic nervous system, temporarily overwhelming such vagotonic syndromes as bronchial asthma, urticaria, and anaphylactic states, but apparently it is not normally present in the blood stream or necessary to health or concerned in sustained blood pressure states.

Many isolated facts about the other endocrines have been gathered—that sometimes ovarian products are of value in disturbances of puberty and of the menopause, natural or surgical; that the parathyroids are concerned somehow in muscle or nerve irritability and in calcium metabolism; that preparations of hypophysis stimulate smooth muscle and are extremely dangerous during labor. In short, we know enough of the endocrines to have great faith in their ultimate effectiveness when we shall have learned to use them safely, and to realize that we really know little about them at present, that they are potent and dangerous, and that our information about them should come from the laboratory and clinic and operating room, and not from the manufacturer's advertising department.

**Interim Report of the Neurosyphilis Investigation of the Massachusetts Commission on Mental Diseases, by Oscar Reader, M. D., Bulletin of the Massachusetts Department of Mental Diseases. Vol. IV, No. 2, April, 1920.** Author concludes, in 428 cases of neurosyphilis treated during a period of four years, 129 cases, or 30 percent, showed definite benefit; 125 cases are under treatment at hospitals, of which a certain percentage can be expected to show similar improvement. Among 93 cases that have drifted away, another definite proportion can be presumed to have benefited from treatment. There are two definite groups of cases of

neurosyphilis, the early, or psychopathic hospital group, and the advanced committable or custodial group. The early case is not met in insane hospitals, except in those which conduct outpatient departments. These cases frequently come to professional attention through the field of general medicine. Early diagnosis gives the greatest promise of successful results, however there is a distinct, though not large, percentage of advanced cases which yield to intensive treatment. (*Boston Medical and Surgical Journal*, July 21, 1921.)

#### TREATMENT OF ARTHRITIS

It is stated by Arthur F. Chace, Victor C. Myers and John A. Killian, New York (*Journal A. M. A.*, Oct. 15, 1921) that the salicylate and cinchophen groups of drugs show comparatively little difference in their analgesic, antipyretic and "uric acid eliminating" effects. It should be noted, however, that the latter term is not sufficiently inclusive, since these drugs also stimulate, to a lesser degree, the elimination of other waste products. There appears to be no relation between the therapeutic efficiency of these drugs in infectious arthritis and their influence on the blood uric acid, a statement which is not generally regarded as applying to gouty arthritis. In the series of cases reported cinchophen and neocinchophen seemed to have a more specific effect in the severe cases of infectious arthritis. The salicylates have the distinct disadvantages of producing marked proteinuria and casts when given in large doses. On this account, cinchophen and neocinchophen are the drugs of choice when, for any reason, it seems desirable to favor the kidneys. Furthermore, the latter drugs appear to produce their therapeutic effect through smaller doses. The salicylates have the advantage of being better assimilated by rectum. Cinchophen and neocinchophen, particularly when given with alkalis, are better tolerated by the stomach than salicylates. Since neocinchophen is an ester instead of an acid, there is less need of using alkali than with cinchophen. In fact, when given without alkali, neocinchophen does not seem to irritate the stomach. Although a few cases of marked idiosyncrasy to the salicylates (acetylsalicylic acid) in the nature of an aller-

(Continued on page 42)

# THE JOURNAL

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Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

## EDITORIAL DEPARTMENT

### THE SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association held its Fifteenth Annual Session in Hot Springs, Arkansas, November 14-17, 1921. There were present over a thousand representative physicians and surgeons from the sixteen southern states, comprising the territory covered by this Association, as well as a number of invited guests from other sections. Hot Springs proved to be an ideal place for the meeting on account of its ample hotel facilities and the enthusiastic co-operation of the local profession.

The representation from Georgia was as large as that from any other state in proportion to the number of its physicians and distance from the meeting place. The "Georgia Special" was joined in Birmingham by the delegations from Alabama and

Louisiana and in Memphis by the "President's Special" from Tennessee. So that, from Memphis a special train consisting of twelve Pullmans carrying over three hundred people was run by the Missouri Pacific direct to Hot Springs for the meeting.

The opening public session was held on Wednesday morning at which Dr. Jerry L. Crook, the President, delivered his annual address on "The Aristocracy of Service." Of special interest to the delegation from Georgia was the response to the address of welcome by Dr. Stewart R. Roberts, which was delivered in his inimitable manner. To speak of it in the common vernacular, "he brought down the house" and "took home the bacon."

The scientific sessions were numerous and well attended. To mention the many interesting, instructive and valuable papers and discussions would require an article in itself. Every member of the profession in Georgia should feel a keen interest in the appointment of the commission consisting of one member from each state to investigate the relative merits of the various claimants to the discovery of anaesthesia. This was occasioned by the presentation of the paper by Dr. Frank K. Boland, on Crawford W. Long before the Section on Surgery. We Georgians know that Long deserves the credit, but others do not seem to agree with us.

The Association unanimously endorsed the movement of The Gorgas Memorial Association for the erection of a school of sanitation to the memory of General William Crawford Gorgas in the Republic of Panama to which this Republic has already given \$500,000 as a nucleus for its endowment.

A sentiment which permeated the entire meeting was that every physician in the southern states should lend his assistance to the building up of a greater Association and greater Journal for the physicians and public of these states. This Association has already grown from a small infant to a strong lusty youth of fifteen years. However, its future should be much greater than its past. It is now second in membership only to the American Medical Association



and is permeated by the spirit of the truest Americanism. We need the Southern Medical Association. We need its Journal. For, although the standard of our medical colleges, as pointed out by the late Dr. E. G. Jones in his presidential address before the Medical Association of Georgia at Macon in 1920, has risen to the place where we have a greater percentage of A-1 schools than any other section of the country, we are still far behind in "recording the written word."

A physician may render a great service to his generation by making some great discovery in the treatment or prevention of disease. He may also render a great service by organizing, stimulating and elevating his profession. To the first class belong the southern physicians Long, Sims and McDowell. In the latter class Dr. Seale Harris of Birmingham occupies a position all by himself. As a slight token of appreciation for his fifteen years of untiring devotion to the Southern Medical Association, he was elected its President for 1921-1922. Let us exert every effort to make this the most successful year in the history of the Association.

The next meeting will be held in Chattanooga, Tenn., November 13-16, 1922.

### **DR. E. C. DAVIS, HONORED**

At the Annual Meeting of the Fulton County Medical Society, December 15, 1921, Dr. E. C. Davis was unanimously elected, by rising vote, President Emeritus for life and Honorary life member in recognition of his great service to his profession in the county, state and nation.

At the same meeting the following officers were elected: President, Dr. R. T. Dorsey; Vice-President, Dr. H. R. Donaldson; Secretary-Treasurer, Dr. Grady E. Clay; Member Board of Censors, Dr. W. E. Person (one member elected annually.) The other members of the Board are Dr. R. R. Daly and Dr. J. R. Barfield.

The Society extended its retiring officers a rising vote of thanks for their faithful and efficient service during the year.

### **MEETING OF THE COMMITTEE ON MEDICAL DEFENSE**

On Tuesday afternoon, November 29, 1921, the Committee on Medical Defense met in the office of the Secretary of the Association. Those present were Drs. M. A. Clark, E. C. Davis, V. O. Harvard and A. H. Bunce. Absent Dr. E. E. Murphy.

Dr. M. A. Clark was re-elected Chairman of the Committee for a period of five years, he having been re-elected a member of the Committee by the Council at the Annual Meeting of the Association in Rome.

Messrs. Bryan & Middlebrooks, the attorneys for the Association, gave a detailed report of all cases which have been disposed of during the year and which are pending at the present time. An important matter for the earnest consideration of every member of the Association is the fact that more damage suits for alleged malpractice have been brought against members of the Association during the past year than during the entire existence of the Committee on Medical Defense since 1916. The majority of these suits have resulted from hasty and ill considered remarks of brother physicians to patients who have made a change in physicians. There is no place where the practical application of the Golden Rule will prove of more direct benefit to the profession than in matters of this kind.

Another very important matter considered by the Committee was the practice of many defendant members employing local counsel without the approval of the Committee or the Attorneys for the Association. While it is the duty of the Committee to investigate and to defend all unjust claims against members it cannot pay local counsel's fees except where such counsel has been employed upon the advice of and through the General Attorneys of the Association. Many cases can be disposed of successfully by the General Counsel on demurrer and other technical legal points without the cases going to trial. In such cases additional local counsel is not necessary. However, the Committee has been very generous in permitting the employment of local counsel to aid in

all cases where such aid seemed to be necessary. For the protection of the Association the Committee ruled definitely that all counsel employed directly by defendants without the approval of the Committee must be at the expense of the defendant and not of the Association.

The above measures are considered necessary because of the increasing number of suits throughout the country as evidenced by the increasing cost of all forms of liability insurance for physicians. In fact some companies have ceased writing insurance of this character.

In conclusion the Committee urged that every member pay his dues promptly and encourage others to do likewise and furthermore that a special effort be made to bring every eligible physician in the state into the Association, so that this and other valuable services may be rendered by the Association to its membership.

### MEETING SIXTH DISTRICT MEDICAL SOCIETY

On December 14, 1921 the Sixth District Society held its regular meeting at the Hotel Dempsey, Macon, Georgia. Dr. J. O. Elrod, Councillor, from this District presented a very important paper on "Why Every Physician Should be a Member of His Local Society." It was moved and carried that this paper be published in the Journal of the Association for the benefit of the profession throughout the State. Dr. Elrod speaks with authority on the subject of organization, since his district shows the highest percentage of members of the Association amongst those eligible.

Dr. T. F. Abercrombie, Commissioner of Health, was present and urged the more general use of toxin-antitoxin for the prevention of diphtheria.

The District Meeting was especially fortunate in having Dr. E. C. Thrash, President of the State Association, as its guest. Dr. Thrash has been untiring in his efforts to help further all of the interests of the County and District Societies and State Association since his election. In fact he has

established a record for his interest in and attendance at and service to the constituent Societies throughout the State.

The following regular program was carried out at this meeting:

1. Why Each Physician Should Be a Member of His County Society. Dr. J. O. Elrod, Forsyth, Georgia.
2. How to Restore Muscle Power in Paralytic Conditions. Dr. Theodore Toepel, Atlanta, Georgia.
3. Size, Shape and Position of the Stomach in Relation to Diagnosis. Dr. C. D. Cleg-horn, Macon, Ga.
4. Aneurysm of Descending Arch of Aorta. Dr. W. C. Pumpelly, Macon, Ga.
5. Some Observations on Neuro-syphilis. Dr. A. H. Bunce, Atlanta, Ga.
6. Rupture of Uterus-with report of a case. Dr. O. H. Weaver, Macon, Ga.
7. The Surgical Removal of Teeth-With lantern slide demonstration. Dr. P. G. Gates, Macon, Ga.
8. Use of Toxin Antitoxin in Immunization Against Diphtheria. Dr. T. D. Walker, Macon, Ga.
9. X-ray Measurement of Cardiac Shadows. Dr. C. C. Harrold, Macon, Ga.

After the close of scientific session the following officers were elected: President, Dr. G. L. Alexander, Forsyth, Georgia; Vice-President, Dr. H. W. Copeland, Jackson, Georgia.

A sumptuous dinner was served to the entire membership by the Bibb County Medical Society at the close of the session.

The next meeting of the society will be held in June 1922 at Indian Springs, Ga.

G. Y. Massenburg, Secretary.

### MEETING OF THE ATLANTA NEUROLOGICAL SOCIETY.

The regular monthly meeting of the Atlanta Neurological Society was held on November 25, 1921, Dr. Gaines, the president, presiding.

Dr. Jas. N. Brawner, Dr. A. F. Brawner, collaborating read a paper, entitled "Report of Cases Presenting Some Diagnostic Diffi-



culties," an abstract of which is as follows:

In the practice of Neuro-psychiatry as in other branches of medicine we often meet up with cases presenting diagnostic difficulties. A few years ago when a patient showed pupillary anomalies, a positive Rhomberg, tremors, and mental symptoms, with increased cells and globulin, we diagnosed paresis or cerebro-spinal syphilis even with a negative Wasserman in the spinal fluid. With the advent of epidemic encephalitis we have learned that there are other agents giving this same picture.

We wish to report three cases of particular interest from a diagnostic standpoint.

Case I: A man, age 55; married; three children; merchant. Family history is negative. In the past he had a nervous breakdown in 1914 from which he never fully recovered, being depressed at times tho able to carry on his business. He denies all venereal diseases. On entering the Sanatorium he was nervous, irritable, confused, and talked a great deal, especially on religion. He showed a memory defect for recent events. There was a tremor of the tongue and mouth. Pupils were equal and reacted slowly to light. Knee jerks were greatly exaggerated. There was a slight Rhomberg. Urine negative. B. P.-systolic-175, diastolic-100. Blood Wasserman double plus. Spinal fluid showed ten cells to c.c. and globulin double plus; Wasserman negative. After a few days he became very talkative and noisy with grandiose ideas and had to be confined. It looked like a case of paresis. In two weeks he began to improve mentally and physically. In four weeks he was about normal again. He returned home and is apparently normal except that he fatigues more easily than formerly.

Here it is a question whether we are dealing with a case of paresis with a negative Wasserman in the spinal fluid, cerebro-spinal syphilis, epidemic encephalitis with involvement of the cortex, or an unknown toxic infectious process. Our experience shows that nearly all cases of paresis give a positive Wasserman. We are therefore inclined to

rule this out. The sudden onset rules out cerebrospinal syphilis. We rather think the condition was an epidemic encephalitis tho we must consider the possibility of a toxic infectious psychosis with a low grade inflammatory condition of the brain produced by an unknown organism.

Case II—A man; age 36; married; two children; merchant. Family history negative except that his father was a moderate drinker. In the past he had pneumonia one month before admission to the hospital. He entered the Sanatorium suffering from a mild hemiplegia of the left side and after having had two or three convulsions. Some disturbance of sensation. Both knee jerks exaggerated, the left more than right. Pupils equal and react slowly to light. Rhomberg positive. Tremors of face and tongue. Mentally dull, quiet, gets words and ideas mixed. No delusions nor hallucinations. Blood Wasserman negative. Leucocytes 12000. Spinal fluid showed 248 cells to c. c.; globulin four plus; Wasserman negative. For a few days he ran one half to one degree of fever. He gradually improved and a month later went home. He had two or three convulsions and returned. The hemiplegia was better as were mind and sensation. Spinal fluid—cells 40 to c. c., globulin double plus, Wasserman double plus. He was put on mixed treatment; gradually improved; and returned home in a few weeks. Two months later we were called to bedside to find him in a coma following several convulsions. We gave an unfavorable prognosis. He gradually improved and three months after came to my office having had no more convulsions and all the symptoms cleared up. He was attending to business.

This illness occurred before the advent of the encephalitis of Flu. It is a question whether here we were dealing with a pneumococic infection; an alcoholic wet brain; cerebro-spinal syphilis; or epidemic encephalitis.

Case III: A woman; age 38; married; second husband; no children. Ovaries removed while living with first husband. First husband died at thirty five with some

nervous trouble. Family history negative. She entered the Sanatorium with mental symptoms resembling paresis. Memory defects; speech disturbance; grandiose ideas; restless; agitated; and unreasonable. Examination showed increased reflexes; positive Rhomberg, tremors; one pupil larger than other and reacting slowly to light. The mental symptoms had been coming on for months and gradually getting worse. Blood Wasserman double plus. Spinal fluid showed 48 cells to c. c.; globulin double plus; and Wasserman negative. She remained in the Sanatorium and stationary so far as symptoms were concerned for three months. She was then taken to a state hospital in the north and lost track of.

We are inclined to think this was paresis and treated her as such. But the spinal fluid picture makes one think of epidemic encephalitis of a cortical type with a chronic course as a possibility.

We present these cases for discussion as examples of a type which has given us much difficulty in the way of diagnosis.

#### Discussion

Dr. Dowman: I am particularly interested in epidemic encephalitis. We see so many so-called "spastic children." The majority of these cannot be placed in the traumatic class; that is, Little's Disease. They must have areas of sclerosis all thru the nervous system and I have a feeling that there are definite cases of encephalitis occurring in utero. During pregnancy there has been an encephalitis, which subsequently gives us this picture. I believe therefore that the majority are not Little's Disease but a type of encephalitis taking place in utero.

Encephalitis gives us other neurological manifestations; for instance, chorea and I dare say epilepsy. I am particularly interested in epilepsy in adults. In etiology I think probably Syphilis comes first; then trauma, brain tumor, encephalitis, and lastly toxic conditions.

Dr. Roberts: I should first like to ask Dr. Dowman how he differentiates between the so-called "spastic child" with pyramidal tract involvement and Little's Disease.

I was particularly interested in the case with convulsions after hemiplegia who recovered and was afterward active in business. Herrick in a paper read at Atlantic City in 1919 showed that the spinal fluid in the acute infections: measles, mumps, chicken pox, etc., may exhibit increased globulin and cell count without any gross inflam-

mation or defect in the nervous system showing clinically. This involvement cleared up as the case did. In a recent epidemic of poliomyelitis anterior the New York Board of Health ruled that a case showing increased globulin and cells on lumbar puncture was this disease. A physician, Curley by name, claimed this was not always the case because of the occurrence of this same spinal fluid picture in the acute infections. If an acute infection can cause pleocytosis and increased globulin in the spinal fluid, how much more easily can any involvement of the meninges cause that picture. We have picked up several cases of meningitis in this way which did not show clinically at first.

Another point that strikes me is how feeble is our prognosis in hemiplegia. For instance we had a patient with hemiplegia. He showed stertorous breathing, complete hemiplegia, and about the third day after the hemorrhage the blood pressure rose from 155 to 265 systolic. We decided to do a lumbar puncture feeling that he would probably die anyhow and that this was the last chance. The spinal fluid was blood streaked and this blood did not come from a punctured vein. He recovered and now shows practically no evidence of his hemiplegia.

I have often wondered why some patients with hemiplegia have convulsions while others do not. And again, how can we differentiate between hemiplegia due to hemorrhage into the lenticulostriate artery and that due to cortical hemorrhage. For a good many years we have seen patients at the Grady Hospital with senile sclerosis, senile kidneys, and blood pressure below normal go into periods of unconsciousness and sleep for days and come out of it apparently all right. They would be normal for a few days and then return to this state. There would be transient hemiplegias and transient monoplegias. Osler says in hemiplegias tell the family the patient will never be well again. But my experience shows that we cannot be at all certain as to the outcome.

Dr. Gaines: There are many interesting points in this paper. In the last number of the Journal of the A. M. A. were some very interesting articles on Neuro-syphilis particularly that one by Solomon. He cited numerous cases with negative laboratory findings in the blood and spinal fluid but with all the clinical symptoms and history of syphilis. These are cases of arterial syphilis affecting the vascular supply of the brain while there are no changes in the parenchyma and meninges and consequently no changes in the spinal fluid. In all forms of syphilis of the central nervous system the whole laboratory findings are so often negative that the clinical neurological findings are the points to be relied upon and not the laboratory too much. Reports show that we can frequently get a provocative reaction in the spinal fluid as well as the blood.



In regard to encephalitis, we feel that this is indeed a most remarkable disease. I should like to mention a case of a patient fifty three years old who awakened her husband by having a series of convulsions. She then had intense pains in her arms of a polyneuritic type, and later became lethargic, with tremors. The spinal fluid showed twenty cells to the c. c. and increased globulin. Since then she has developed a diplopia and has run a slight temperature.

Dr. Brawner (closing): while Dr. Dowman is thinking in terms of tumor pathology, I am thinking in terms of cortical pathology and Dr. Roberts is thinking in terms of medicine. When we find pleocytosis, increased globulin, and a positive Wassermann we naturally conclude it is syphilis; when the Wassermann is negative and also the history we begin to think of other pathological processes in the cortex and the first thing which occurs to us is encephalitis. Dr. Roberts asked as to the differentiation between hemiplegia due to lesion in the corpus striatum and the cortex: cortical hemiplegia is never as complete as the central lesion because the pressure is not so complete in the cortex and also because the corpus striatum is more highly differentiated than the cortex. Franks removed the motor area in monkeys found the hemiplegia was fairly complete for a few days but later they could perform all movements all right except intentional. The other side was removed and the same thing occurred. Some years ago I did the same thing on dogs and found this to be true. The dogs could do anything but when they tried to cross a stream by a narrow log they could not accomplish this.

Dr. Gaines: It would seem that Dr. Dowman is under the wrong impression in thinking Little's Disease is always due to birth trauma. All of these "spastic children" should be grouped under Little's Disease.

W. W. Young, M. D., Secretary.

## MINUTES OF TWENTY-SECOND SEMI-ANNUAL MEETING OF ELEVENTH DISTRICT MEDICAL SOCIETY

Valdosta, Ga., November 22, 1921.

Meeting was called to order at 10:30 A. M. by Dr. A. S. M. Coleman, President of the Society, in the parlors of the Valdes Hotel.

Dr. Coleman read a letter from the Secretary, Dr. Simmons, explaining his absence from the meeting. Dr. B. H. Minchew, of Waycross, was requested to act as Secretary.

Invocation by Dr. T. M. Talbot, of Valdosta, and the address of welcome was delivered by Dr. A. Griffin, Valdosta.

Response by Dr. R. C. Woodward of Adel, Georgia.

Address by A. S. M. Coleman, President.

The following scientific program was carried out:

A paper, "The Causes of Continued Fever Following the Administration of Typhoid Vaccine," was presented by Dr. H. G. Huey, of Homerville, Georgia, and was commented on by Drs. Rufus T. Dorsey, of Atlanta, J. W. Daniel, Savannah, and T. H. Clarke, Douglas, Ga.

"The Fractured Hip" by R. C. Woodward, Adel, was discussed by Drs. W. F. Reavis, Waycross; C. W. Roberts, Atlanta and B. H. Minchew, Waycross.

Exhibition of some Clinical Cases were then made by Dr. Frank Bird, and examinations were made by several of the attending physicians, after which an interesting discussion was engaged in by Drs. Rufus T. Dorsey and J. W. Daniel.

A paper, "Report of some Interesting Obstetrical Cases" was read by Dr. J. F. Mixson, Valdosta, and discussed by Drs. J. W. Daniel and W. F. Reavis.

The next paper on the program was "Tenorrhaphy" by Dr. Kenneth McCullough, of Waycross, but Dr. McCullough was unable to be present to the regret of the Society.

Letters were then read from Drs. Simmons and Thrash explaining their absence from the meeting.

Adjourned 1:00 o'clock for Lunch.

Afternoon Session opened at 2:15.

A Report of some Ulcer Cases was given by Dr. J. C. Wilson, Valdosta, and was discussed by Drs. Frank Bird, Valdosta; A. S. M. Coleman, Douglas, C. W. Roberts, Atlanta, and P. C. Quarterman, Valdosta.

A paper, "Transplantation Flap Repair of Lower Eyelid, following Removal of Epithelioma," by Dr. B. H. Minchew, Waycross, with the presentation of the patient in question. A very lively discussion was engaged in by Drs. J. W. Landham, Atlanta, Tom Smith, Valdosta, R. C. Woodward, Adel, and Dr. Coleman.

Dr. G. T. Crozier, Valdosta, then read a paper "Result of Public Health Work in



Lowndes County," discussion by Dr. R. C. Woodward.

A very interesting paper, entitled "Disorders of the Stomach; Some Facts, Fallacies and Figures" was presented by Dr. C. W. Roberts of Atlanta, and discussed at length by Dr. Rufus T. Dorsey.

Dr. J. W. Daniel, Savannah, gave a most interesting and instructive talk on "The Importance of Blood Chemistry in Medicine" and an animated discussion was engaged in by Drs. Minchew, Dorsey and Roberts.

A short, but entertaining talk was given by Dr. Rufus T. Dorsey "Concerning Nervous People," exhibiting some charts giving some causes for nervousness and also some treatments. Discussion by Drs. J. W. Daniel and R. C. Woodward.

The last paper on the program was "The Use and Abuse of the X-Ray and Radium in the Treatment of Malignancies" by Dr. J. W. Landham, Atlanta, with discussion by Dr. C. W. Roberts.

After the Scientific program, an election of officers was held. This resulted in the selection of Dr. Frank Bird, of Valdosta, for President; Dr. C. W. Clements, of Ray City, Vice President; Dr. J. F. Mixson, of Valdosta, Secretary and Treasurer.

Dr. T. H. Clark, of Douglas, was elected Counselor to succeed Dr. A. G. Little, whose term now expires.

In the discussion for the next mid-summer meeting, an invitation from Douglas was discussed and accepted.

The visitors were then taken out to the Valdosta Country Club and given a barbecue supper at 6:30 P. M.

J. F. Mixson, M. D.  
Secretary.

### CLARKE COUNTY MEDICAL SOCIETY

Athens, Ga., Dec. 5, 1921.

The Clark County Medical Society held it's annual dinner at the Georgian Hotel, Athens, on December 2nd. Election of officers for 1922 resulted as follows:

For President.—Dr. W. H. Cabaniss.

Vice President.—Dr. A. A. Rayle.

Secretary-Treasurer.—Dr. Linton Gerdine.

Censor.—Dr. A. B. Patton.

Delegate.—Dr. D. H. DuPree.

Alternate.—Dr. H. M. Fullilove.

During the past year this society had twenty-seven active and two honorary members.

### MEETING THIRD DISTRICT MEDICAL SOCIETY

The Twenty-Ninth semi-annual session of the Third District Medical Association was held with Crisp County Medical Society, at Cordele, Georgia, November 22nd, with sixty-five physicians, their wives and intended wives, throughout the District, in attendance.

The scientific program was opened with a paper by Dr. B. C. Keister, of Americus, entitled "Whither are we Drifting as a Profession," that brought forth a very interesting as well as lengthy discussion; a symposium on cardio-renal diseases was the next number of the program, consisting of the following subject, to-wit:

"Cystitis" by Dr. R. C. Montgomery, Butler, Georgia.

"The Relation of Syphilis to Cardio-renal Diseases" by Dr. Allen H. Bunce, Secretary of the Medical Association of Georgia, Atlanta, Georgia.

"Interpretation of Blood Pressure in Cardio-renal Diseases" by Dr. J. T. Stukes, Americus, Georgia.

"Blood Pressure in Cardio-renal Diseases" by Dr. E. C. Thrash, President Medical Association of Georgia, Atlanta, Georgia.

Officers elected for the ensuing year are as follows:

President—Dr. E. T. Bradley, Cordele, Georgia.

Vice-President—Dr. J. T. Stukes, Americus, Georgia.

A special program of entertainment for the ladies was held at the home of Dr. and Mrs. M. R. Smith, until about 9 P. M., when they were invited to assemble with the doctors in the dining room of the Suwanee Hotel, where a delightful seven-course banquet was served them by Crisp County Medical Society. Quite a number of after-dinner

speeches added to the pleasure of the occasion but the solos by Miss McArthur, of Cordele, Mrs. Mullino, of Montezuma, Readings by Misses Willis, of Cordele, and Keister, of Americus, deserve special mention, for the entertainment as well as pleasure of the occasion. After a rising vote of thanks to Crisp County Medical Society for royal entertainment given, and accepting the invitation to hold the Thirtieth semi-annual session with Terrell County Medical Society at Dawson, Georgia, June, 1922, the meeting adjourned.

Chas. A. Greer, Secretary.

### THE RANDOLPH COUNTY MEDICAL SOCIETY ELECT OFFICERS FOR 1922

Dr. J. C. Patterson, Cuthbert, Georgia, President.

Dr. F. M. Martin, Shellman, Georgia, Vice-President.

Dr. G. Y. Moore, Cuthbert, Ga., Sec-Treas.

Dr. F. D. Patterson, Cuthbert, Georgia, Censor—3 years.

Dr. E. C. McCurdy, Shellman, Georgia, Censor—2 years.

Dr. F. S. Rogers, Coleman, Georgia, Censor 1 year.

### SEVENTH DISTRICT MEDICAL SOCIETY MEETS IN CEDARTOWN

The Seventh District Medical Society was called to order in Cedartown at its regular semi-annual session, Wednesday, December, 7th., 1921, with Dr. C. F. McLain of Calhoun as President and Dr. M. M. McCord of Rome as Secretary.

Invocation was delivered by Rev W. F. Quillian, after which Dr. H. M. Hall, Mayor, and Dr. C. Van Wood for the Polk County Medical Society, extended most hospitable and generous welcomes to their guests, which were responded to in very appropriate words by Dr. Robert H. Wicker of Rome.

The minutes of the meeting, held at Calhoun in July, were read and adopted.

Dr. J. P. Bowdoin, for the committee on Public Health and Legislation, made a most

excellent report of the great progress which is being made along lines of public health in the district. He also gave a brief synopsis of the work of the entire state.

Complying with the request of the Georgia Pediatric Society, Dr. M. M. McCord urged all the physicians of the district to aid in the prevention of diphtheria by applying the Schick test to all exposed children, as a means of determining those who had no natural immunity, and then to urge all such to be immunized especially with reference to schools, hospitals etc., where children are so often thrown together.

Papers were then taken up as follows:

Diseases of Gall Bladder—Dr. W. H. Lewis, Rome. Discussed by Drs. Hall, Turner, McCall and Wood.

Pneumonia—Dr. W. J. Shaw, Rome. Discussed by Dr. Good.

New Drugs—Dr. J. L. Garrard, Rome. Discussed by Drs. Hall and Wood.

Significance of Epilepsy in Adults—Dr. Chas. E. Dowman, Atlanta. Discussed by Dr. Lewis.

Mastitis—Dr. H. A. Turner, Rome. Discussed by Drs. Garrard and McCall.

Some Observations on the Southern Medical Association meeting at Hot Springs, Dr. W. P. Harbin, Rome. Discussed by Drs. Bowdoin and Bunce.

Spasmophilic in Babies—Dr. M. M. McCord, Rome. Discussed by Dr. Dowman.

Uraemic Poisoning — Symposium — Drs. H. M. Hall, C. Van Wood and P. O. Chaudron, Cedartown. Discussed by Drs. Turner, McCord, Good, Clements, E. H. Richardson, Wicker and Cooper.

The Society was most magnificently entertained at lunch at the beautiful Wayside Inn by the Polk County Medical Society. Everything that was possible, was done to make every one have a great day, which is characteristic of Cedartown.

The society was honored with the presence of the Secretary Medical Association of Georgia, Dr. Allen H. Bunce.

Motion was made expressing appreciation to the invited guest, Dr. Chas. E. Dowman of Atlanta, for his most excellent paper.



Motion was made and carried that Dr. Clements of Subligna be entered on the register as an honorary member for life.

Motion made and carried that on account of having more favorable weather for the semi-annual meetings that hereafter the meetings be held 1st Wednesday in April and last Wednesday in September.

A resolution was passed thanking the profession of Polk County for the most enjoyable day given the members of the Seventh District Medical Society in Cedartown.

There being no further business the Society adjourned.

M. M. McCord, M. D. Secretary.

### **A REPORT OF "CANCER WEEK" ACTIVITIES, BY THE CANCER COMMISSION OF THE MEDICAL ASSOCIATION OF GEORGIA.**

James L. Campbell, M. D., Chairman.

Gentlemen:—

As Chairman of your Commission for the study and control of Cancer, I have the honor to make the following report of work done in conjunction with the American Society for the Control of Cancer.

Early in the year the National Society determined to conduct a nation wide educational campaign, which should culminate around the week of October 30th to November 5th. Your Commission naturally concluded that this would be their best opportunity to bring this important subject to the attention of the people of Georgia.

#### **I**

Early in October, I wrote to the members of the Cancer Commission, suggesting—

(a) That each County Society, in their district, be urged to hold a special scientific meeting devoted to the study of Cancer. This suggestion was supplemented by a letter to the County Societies making the same request, and also asking that they arrange for as many public meetings as possible to be conducted under the auspices of the Society.

(b) That a member of the State Medical Association in every section of the district be requested to see their local minister and urge him to mention the campaign at the Sunday service, or allow a medical speaker to make a few minutes talk on the subject.

This letter was also supplemented by one to the Protestant Ministers explaining the object of the campaign and enclosing literature from the State Medical Association and the American Society for the Control of Cancer.

The first letter to the Commission was followed by others, urging them to look after newspaper publicity and public lectures. It is gratifying to know that these suggestions were carried out in many sections of the State.

#### **II**

In behalf of the Commission, I want to thank the papers both secular and religious for their co-operation.

From the time of Mr. Lakeman's visit to Atlanta, early in October, the local papers have been very active. Beginning October 30th, they published daily items, reporting and abstracting the lectures and literature furnished for public educational purposes. In addition to this, they have published leading Editorials and the Georgian produced a splendid cartoon dealing with the activities of the medical profession, in their efforts to control the disease. Altogether 30 or 40 news items and editorials have appeared in Atlanta alone.

Every weekly paper in the State was furnished with a letter explaining the object of the campaign, a news item and educational literature, much of which have been used to advantage.

An article was sent to the leading daily papers by their special correspondents, for the Sunday issues of October 30th.

About 175,000 people were reached by publications in the Christian Index and Wesleyan Advocate, and 25,000 by one in the Journal of Labor.

The Journal of the Medical Association



of Georgia issued a special Bulletin of 4,500 copies, which was sent to every doctor in the State and many of the ministers. The Association also furnished the Commission with several thousand folders, and leaflets, and about 2,000 circular letters, which were sent to individuals throughout the State.

### III

Reports from all over the State are still being received, telling of lectures and meetings in the interest of Cancer Control, both during and since "Cancer Week."

In Atlanta alone there were more than 25 lectures delivered to Nurses, Civic Organizations, Ministerial Meetings, Women's Clubs, Labor Unions and Student Bodies of the various schools and universities in and around the City. We feel safe to say that fully 3,500 people were reached in this way. The Fulton County Medical Society devoted its regular meeting of November 3rd to the study of Cancer. The program was an interesting one and the papers were well discussed.

Dr. Leo P. Daly was assigned the work among the Catholic Churches and addressed the K. of C. and other orders. Dr. J. E. Sommerfield who took care of the work among the Jewish people also did some good work.

The colored people were not forgotten. Dr. Allen D. Jones was appointed for this work and arranged talks in the churches and other meetings.

### IV

The literature furnished by the American Society for the Control of Cancer, and the State Medical Association was distributed through the mail and at the various meetings.

So far as I am able to ascertain the State has been well covered, and reports show that the public and profession have been greatly interested. I feel sure that as a result of the campaign many lives will be saved or prolonged.

## RESOLUTIONS ON THE DEATH OF DR. HENRY W. TERRELL,

Passed by the Muscogee Medical Society.

Whereas:—Our former Councilor and fel-

low practitioner Dr. Henry W. Terrell of La Grange, Georgia, departed this life on November 23, 1921.

And Whereas; We the members of the Muscogee County Medical Society have known and been closely associated with him for a number of years he having been recently elected First Vice President of the Georgia State Medical Association, be it therefore resolved:

First—That we feel deeply the loss of our friend and fellow practitioner.

Second—That Dr. Terrell was a doctor in the true sense of the word, realizing that the progress of the world depends not on the empty sayings of politicians, but upon the efforts of science in the laboratory and other fields, that he applied himself diligently and successfully to his profession doing those things which he considered to be to the best interests mentally, morally, and physically of his associates, that he did these things without any hopes of fame or fortune, he did not seek the plaudits of men, but was perfectly satisfied with the knowledge of duties well performed.

Third—The Fourth Congressional District as well as the Georgia State Medical Association and the public at large has lost a scientific medical man whose place will be hard to fill. That while we have to content ourselves with an all wise providence we cannot understand why his death had to come at the most proficient time of his life.

Fourth—That these resolutions be spread upon the minutes of the Muscogee Medical Society, and that a copy be sent to his bereaved family and to the Secretary of the Georgia State Medical Association.

Committee on Resolutions.

Dr. J. M. Anderson, Chairman,

Dr. C. A. Peacock,

Dr. E. L. Baker.

## DOCTOR HENRY W. TERRELL

WHEREAS, in the untimely demise of our late Vice-President, Dr. Henry W. Terrell, of La Grange, the Medical Association of Georgia has lost an energetic and untiring official, the members of the Association a

true loyal friend, his patients a sympathetic and able adviser, the State of Georgia a valuable and patriotic citizen, and his family a loving and devoted member;

BE IT RESOLVED, That the Council of the Association take this method of expressing its deep grief that he should have been taken from us in the prime of his vigor and usefulness, and of expressing its sympathy with the friends and family who are mourning him.

W. E. McCurry, Chairman.

C. K. Sharp,

W. R. McCall,

### DOCTOR EDWARD G. JONES

WHEREAS, in the loss of our Representative in the House of Delegates in the American Medical Association, and an Ex-President of the Medical Association of Georgia, Dr. Edward G. Jones, of Atlanta, a man whose devoted friends were numbered by those who knew him, and whose beneficiaries were numbered in part by those who had received the benefit of his unsurpassed surgical skill, the Medical Association of Georgia has lost one of its most active members and has been deprived of the services of one of its ablest and most influential officials;

BE IT RESOLVED, that the Council of the Medical Association of Georgia sorrows that the Association has lost a member who can be il-ly spared, and the South a citizen and surgeon whose place can with difficulty be filled.

W. E. McCurry, Chairman, .

C. K. Sharp,

W. R. McCall.

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#### Southern Gastro-Enterological Association

(Meeting conjointly with Southern Medical Association)

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**BOOK REVIEWS.**

**A TREATISE ON THE TRANSFORMATION OF THE INTESTINAL FLORA WITH SPECIAL REFERENCE TO THE IMPLANTATION OF BACILLUS ACIDOPHILUS.**

By Leo F. Rettger.

Professor of Bacteriology, Yale University.  
And Harry A. Cheplin.

Seessel Fellow in Bacteriology, Yale University. From the Sheffield Laboratory of Bacteriology, Yale University, One Volume, Cloth. New Haven, Yale University Press. London Humphrey Milford. Oxford Press. 1921.

The relation of diet to the resulting intestinal flora by special forms of diet or by cultures of desirable forms of bacteria has interested bacteriologists for many years. The authors devote a chapter to a historical review of work done on this subject before presenting the results of their own extensive studies. Their experiments were done first on albino rats and later confirmed on human subjects. The normal flora on ordinary diet was studied first and *B. acidophilus* was found present normally in small numbers.

After feeding large amounts of lactose or dextrin *B. acidophilus* greatly predominated. Large amounts of cultures of *B. acidophilus* were fed and the normal flora largely replaced by *B.* These two methods were then combined with equally favorable results. Glucose, maltose and saccharose feedings



did not increase the number of *B. acidophilus*.

Efforts to replace the normal flora with *B. bulgaricus* failed, both when carbohydrates were fed and when cultures were fed.

It is interesting to note that, before there was a marked increase in the number of *B. acidophilus*, sufficient lactose or dextrin was fed to give a positive sugar test in the faces and that with sugar in the colon the hydrogen-ion content remained practically normal.

Two of their seventeen human subjects suffering from alimentary disturbances before beginning the tests were apparently greatly benefitted by the feedings and resultant predominance of *B. acidophilus* in their intestinal flora.

This work throws new light on the whole subject of substituting harmless bacteria for those causing alimentary disturbances, especially in children, who are fed different sugars empirically with more regard to colonies than to the selective action of different bacteria. It shows the futility of feeding small doses of sugars or of cultures.

While it is interesting to know that the normal intestinal flora can be changed, this work paves the way for a study of the effects of different sugars and cultures on the abnormal intestinal flora.

To those engaged in similar work the methods used, and the bibliography will be found useful.

G. F. Klugh.

**Dementia Praecox.** By Prof. Emil Kraepelin, Munich (Translated by Drs. R. M. Barclay and G. M. Robertson) 1919. E. & S. Livingstone, Edinburg. p. 328.

This book is a most excellent translation of the section on Dementia Praecox appearing in Prof. Kraepelin's *Psychiatry* which is the leading German text book on diseases of the mind.

In view of the fact that patients suffering from this disease form the major part of the inmates of our asylums and since there appears to be no diminution of the number being admitted it would be well for all physicians to acquaint themselves with all data

obtainable regarding this malady. Prof. Kraepelin is the recognized authority on the subject and anything emanating from his pen is to be regarded as authentic. The subject in all its various aspects, is fully covered in this book. On the whole this work is in keeping with the standard set by the author in his previous works and forms a very valuable addition to the physician's library.

**Harrowers Monographs on the Internal Secretions. Hyperthyroidism: Medical Aspects.** By Henry R. Harrower, Glendale, Calif., 1921. The Harrower Laboratory. p. 119.

This article savors entirely too much of commercialism and was evidently prepared to reach those credulous clinicians who are willing to accept unproved theories rather than proven scientific facts.

Before accepting any of the statements made by the author it would be well for the profession to recall the warnings sounded by Hoskins, Cushing and the Journal of the American Medical Association against the promiscuous use of glandular therapy, as well as the claims made by over enthusiastic supporters. There are far too many cases where the personality of the physician, corrected diet or improved hygiene, have obtained results which were attributed to the use of glandular therapy. Enthusiasm often causes such a perversion of vision that evidence of a disturbed endocrine metabolism is seen where it does not exist.

This article is entertainingly written but is as thoroughly unreliable as are the flood of post cards which are emanating from the author's laboratory.

N. M. Owensby.

## ANNOUNCEMENTS.

### NEW LABORATORIES FOR ABBOTT'S.

A substantial group of eight concrete buildings in North Chicago looms as evidence of the growth that is said to follow true service.

When the war cut off the import of medicinal chemicals used quite generally by physicians in this country, The Abbott Laboratories were among the first to provide for the

urgent home demands. Such drugs as Barbitol, Procaine and Cinchophen were produced in this period by its chemists under license from the Federal Trade Commission. Since that time there has been a continually increasing demand for these and other high grade synthetics, under the Abbott label, necessitating an enlargement of manufacturing space and facilities.

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Dr. Hugh M. Lokey and Dr. Herschel C. Crawford, announce the removal of their offices, from The Candler Building to Suite 41 The Doctors Building, corner Peachtree and Pine Streets, January 1st 1922.

Dr. J. H. Sessions, announces the removal of his office from Sylvester, Georgia to Macon, Georgia for the General Practice of Medicine. Associated with Dr. J. C. Pate 518-19-20 Georgia Casualty Building.

Dr. W. N. Adkins, announces the removal of his offices January 1st, 1922, from the Candler Building to 79 Forrest Avenue, S. W. Corner Piedmont Avenue. Consultation by appointment. Phone Ivy 143.

#### ABSTRACTS FROM CURRENT LITERATURE.

#### TREATMENT OF MIGRAINE AND OTHER TYPES OF HEADACHE.

Thomas R. Brown, Baltimore (Journal A. M. A., Oct. 29, 1921) believes that in the largest group of cases of headache it is excessive intake of carbohydrate food, or rather, an intake of carbohydrate food in excess of the body's ability to consume it thoroughly, that plays the largest role in those headaches associated with dietetic error. In certain cases the headaches are typical migraine, many are atypical, many are bilious headaches (so common in the South, and in which

the patients have found that purgation and starvation often bring rapid relief of symptoms) and some are cases of almost constant or very frequent headaches, often diffuse, and not hemicranial. In many of these cases the patient has noted that the headache follows excessive intake of carbohydrate food, usually sugar in some form, and some have noted that if this is followed immediately by a large amount of alkalis, the headache can be absorbed. Brown's treatment has been practically that suggested by Francis Hare—two or three weeks of a diet consisting largely of proteins, fats, greens and acid fruits, with absolutely no sugar or starch except that found in the foregoing foods, in other words, practically antidiabetic diet, trying to keep the weight constant by giving considerable amounts of butter, cream and olive oil, and later adding a very small amount of carbohydrate, one or two slices of bread or toast, one or two potatoes or a small plate of oatmeal daily, and keeping the patient on this diet or a diet even more restricted or somewhat less restricted in starches according to its effects, for a long period of time, sometimes indefinitely. Headaches associated with the intake of animal protein food are next in point of frequency to the group just discussed. There is a very large amount of clinical evidence in favor of this theory; in many cases the patients have noted that, after an excess of animal protein food, headache is likely to occur. In certain cases of migraine, patients have obtained great relief from a vegetarian diet, while in other cases certain special proteins seem to be peculiarly implicated, such as eggs or milk or a combination of the two, and in one of my cases, ham. In many of these cases the patients themselves have recognized the relationship between food and headache and have shaped their dietary accordingly. Other causes undoubtedly play a part—nervous influences, fatigue, climate, etc. In the treatment of this group of patients, the most satisfactory results have been obtained by the complete removal of all animal protein foods from the dietary for a certain length of time, then the very cautious addition of small amounts of various proteins. In some



cases of intense migraine it has been necessary to keep the patient permanently on a purely vegetarian diet. In Brown's series of fifty or more cases, carbohydrates seemed to have played the predominant role in the largest number of cases; animal protein food in almost as many; special foods, notably sugar or eggs in a very few cases, while in an occasional case the headache might be regarded as a definite expression of intestinal toxemia or bacteremia or of an error in metabolism. That some disturbance in liver function plays a part in these headaches is suggested by the fact that there is in some cases a temporary enlargement of the liver during and after the acute symptoms. While it is not always possible to determine to which special form of dietetic error the individual headache may be ascribed, nevertheless in many cases a very careful clinical analysis, supported by certain laboratory tests, offers a clue as to the *materia peccans*, carbohydrate, animal-protein, or purin-rich food as the case may be. In cases in which it is absolutely impossible from the clinical evidence to incriminate any special food or foods, it is wise to place the patient first on a carbohydrate-free diet for a considerable period of time, and if this proves unsuccessful, then on an animal-protein-free diet. In certain cases such treatment will bring about a very marked improvement in symptoms, in a very few, apparent clinical cure, although, of course, in a large number of cases no effect whatsoever. Finally, in this group of cases the treatment of which is peculiarly unsatisfactory, by many regarded as almost hopeless, this point of view is not justifiable, unless one realizes that in certain of these cases diet unquestionably plays a role, and that a proper recognition of this fact should manifest itself in the appropriate dietetic therapy.

#### SPECIAL MEDICAL NOTES.

**Syphilis and Tuberculosis.** Hollander and Narr report case in which the patient showed gross syphilitic and tuberculosis lesions. Authors review the available statistics of the coexistence of syphilis and tuberculosis and

analyze reports of cases of tuberculous patients in whom the blood Wassermann test was performed. Of the 6,324 cases examined 494 or 10.36 per cent were found definitely syphilitic. On account of the lack of differentiation of strength of the blood Wassermann reaction there were some cases classed as probably syphilitic combining the probably syphilitic with the positive 830 gave a positive reaction of any strength, this makes the incidence of syphilis in all cases investigated 17.81 per cent. (Lester Hollander and Frederick C. Narr, *Archives of Dermatology and Syphilology*, August, 1921.)

**The Syphilitic Factor in Essential Epilepsy.** Novick makes study for the purpose of determining whether syphilis is a factor in a considerable number of epileptic cases, as evidenced by history of infection, clinical manifestations, and corroborative proof of the Wassermann tests, and also the frequency of a positive Wassermann alone in the blood serum of epileptics in the absence of clinical manifestations of syphilis.

The diagnosis of the cases under consideration has been established by constant and careful observation in U. S. P. H. S. Hospital No. 34. The clinical observations of the cases were in no way influenced by the laboratory. The incidence of frank syphilis associated with epilepsy in a series of 231 cases was found to be about 2.2 per cent. The occurrence of a syphilitic factor as evidenced by repeated positive Wassermann tests alone, in the absence of clinical support, was found in 2 per cent of the cases. (N. Novick, *Public Health Reports*, August 26, 1921.)

**Syphilis as Etiologic Factor in Epilepsy.** Bambaren draws the balance sheet of the conception of syphilis inherited or acquired, as a factor in epilepsy, citing testimony for and against it, including a number of articles in *The Journal* and Levy Bing's thirteen cases of essential syphilis with an unmistakable history of epilepsy in all, and remarkable improvement under treatment for syphilis. He remarks in conclusion "How difficult it is for new ideas to gain a foothold," as his comment on Strumpell's denial that inherited syphilis has ever been conclusively



demonstrated as a factor in essential epilepsy. (C. A. Bambaren, Siglo, Medico, Madrid, May 21, 1921; Journal A. M. A., August 6, 1921.)

**A Case of Syphilis Innocently Acquired with a Primary Lesion on the Palm of Left Hand.** Patient a pharmacist's mate, assigned to duty in the venereal ward in one of the base hospitals. While cleaning glass slides which had smears from cases of chancres, one broke and penetrated palm of the left hand. The wound was cauterized with phenol. Later a lesion developed, which was trimmed with safety razor and cauterized with silver nitrate. Lesion disappeared in about two weeks. Two weeks later, a small macular rash appeared on the chest. Wassermann test at this time reported positive. Since then patient has been receiving antisyphilitic treatment, and no physical signs of syphilis have appeared. Two blood Wassermann rests taken since shows 4 plus. (J. W. Jones, United States Naval Medical Bulletin, July, 1921.)

**On the Ravages of Congenital Syphilis and Its Prevention.** Dr. S. Hata, Kitasato institute for Infectious Diseases, Tokyo, gives a critical review based on statistics drawn from the cases personally examined.

Investigated the reproductive power of married women who showed a positive Wassermann reaction and who had been married for three years or more:

A. Not impregnated -----about 40%

B. Impregnated -----about 60%

The fate of the foetuses of these impregnated syphilitic mothers was:

C. Abortions -----about 28%

D. Deaths within 2 years of birth-----  
about 42% or about 58% of living births.

E. Surviving children over 2 years old  
about 30% or about 42% of living births.

Only one-third of these surviving children will live a natural course of healthy life.

The antisyphilitic treatment in vogue, as far as we know, is not radical for congenital syphilis. Best way to decrease congenital syphilis is by treatment of pregnant mothers infected with syphilis. V. M. 390.

hilis is by treatment of pregnant mothers infected with syphilis. V. M. 390.

## ADMINISTRATIVE AND PUBLIC

### HEALTH NOTES.

#### Married Women.

1. Unaware of having syphilis, and who do not admit syphilis in their husbands ----- 21%
2. Unaware of having syphilis, but admit syphilis in husbands ----- 52%
3. Aware of having syphilis in both themselves and husbands ----- 27%

#### Unmarried women.

4. Unaware of having syphilis -----50%
  5. Aware of having syphilis -----50%
- Total married and unmarried women unaware of having syphilis----- $(1 \times 2 \times 4)$  62%
- Total married and unmarried women aware of having syphilis----- $(3 \times 5)$  38%

The early testing of the sero-diagnosis of syphilis in all pregnant women is most desirable, but even if this is considered impracticable, I should offer the following suggestions:

1. To institute a propaganda pointing out the personal and social ravages of congenital syphilis, and also the possibility of transmission of syphilis by women showing a positive Wassermann, who may be quite unaware of having syphilis.

2. To disseminate, more strenuously, information about congenital syphilis among midwives and to teach them that, if there is the least apprehension of syphilis in a pregnant woman or her husband, or if a pregnant woman has previously given birth to a premature foetus, they should advise her to undergo the blood test.

3. If a pregnant woman should show a positive Wassermann, she should be given anti-syphilitic treatment without any loss of time, should her environment permit.

4. The new-born baby of a syphilitic woman should have the blood examined and, if a positive Wassermann is found, proper antisyphilitic treatment should be given and the baby put under long continued observation.

5. If either one of a married couple should have syphilis, the other's blood should also be examined." (S. Hata, International Journal of Public Health, July-August, 1921.)

(Continued from page 25)

gic reaction, have been reported, the experience of the authors has shown that patients are more liable to have vasomotor disturbances of the urticarial type from cinchophen. No serious instances of the latter have been observed.

### HEALTH NUGGETS.

Don't give the baby patent medicine. If you feel you must use advertised remedies, try them on yourself, or, better still, on the dog. Let your family doctor attend to the baby.

It took Ehrlich 606 experiments to discover a way to give a man arsenic enough to kill syphilis germs in his blood without running the risk of killing him. He called the result 6-0-6 or "salvarsan." In this country the United States government supervises its production through the Hygienic Laboratory of the Public Health Service and calls it arsphenamine.

The scratch of a lion's claw is almost as deadly as his bite, for he never cleans his nails and he always carries under them rotting meat that is rank with deadly germs. Flies and water bugs do the same thing on a smaller scale; and: "Don't forget," says

the U. S. Public Health Service, "that they never wipe their feet."

And now we have the woman dental hygienist. She does not pull nor fill teeth and consequently is not a terror to children. Instead, she limits her work to cleaning and polishing the teeth above the gums. The U. S. Public Health Service says that this is most helpful in making the gums healthy and in preventing decay. Twelve states have already legalized such practice by women.

Bedbugs are easily gotten rid of, says a recent publication of the U. S. Public Health Service, by exposing them to extremes of temperature. Cold as low as 17° F. above zero, or as high as 100° F. above, if continued for two or three days, will destroy them. The cold might be applied in the north, for instance in country houses whose owners leave them unoccupied during the winter, or in houses that can be evacuated for a few days. The Service offers no suggestion as to the heat end of the problem, but a roaring furnace for two or three August days might serve—if the owners could camp out for the interval.

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**BOOKS RECEIVED.**

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

*SURGICAL ANATOMY.*

(New Third Edition)

Surgical Anatomy, by William Francis Campbell, M. D., Surgeon-in-Chief at Trinity Hospital, Brooklyn, N. Y.; Sometime Professor of Anatomy and Professor of Surgery Island College Hospital. Third Edition, Revised. 681 pages with 325 original illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth \$6.00 net.

*PRINCIPALS OF MEDICAL TREATMENT*

Principles of medical Treatment, by Geo. Cheever Chattuck, M. D., Octavo, 312 pages

with alternate pages for notes, price \$3.50. W. M. Leonard, Inc., Publishers of Medical Books, 711 Ralston St., Boston, Mass.

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#### *ESSAYS ON SURGICAL SUBJECTS.*

Essays on Surgical Subjects, Sir Berkeley Moynihan, K. C., M. G., C. B., Leeds, England. W. B. Saunders Company, Publishers, Philadelphia and London, 1921.

#### *NOSTRUMS & QUACKERY.*

Nostrums and Quackery, article on the Nostrum's Evil, Quackery and Allied Matters Affecting the Public Health, printed with or without modifications from the Journal of the American Medical Association, prepared, compiled and edited by Arthur J. Cramp, M. D., Volume 2, 1921. Press of American Medical Association, 535 N. Dearborn St., Chicago, Ill.

#### *THE SPLEEN AND SOME OF ITS DISEASES.*

The Spleen and Some of Its Diseases. By Sir Berkeley Moynihan, of Leeds, England. 129 pages with 13 full page diagrams, Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$5.00 net.

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### ORIGINAL ARTICLES

#### **CARBON MONOXIDE POISONING.\***

L. C. Allen, M. D.,  
Hoschton, Ga.

My attention was called to this condition in a striking manner in February of this year, when I was called in great haste to see a man who was thought to be dying, and who, no doubt, did have a close call. This man, Mr. R., aged sixty, living 3 miles from Hoschton, was assisting in grinding feed in a cow barn. The day was cold, and the barn, except for the front door was closed. A gasoline engine, which was out of order, was being used, and Mr. R. had to stand over it to keep the throttle adjusted, otherwise it would stop every few minutes. A pipe carried away the exhaust gases, but this pipe had an elbow in it, and at this elbow there was a leak, which was directly under the man's face and gave him considerable annoyance. Desiring to complete the grinding before stopping to repair the engine, he continued in this position for an hour or more, when he noticed that he was getting dizzy, then his head felt big and full, there were spots before his eyes, his vision became foggy, he became nauseated with slight pains in his stomach; he finally lost consciousness and fell over on the floor. He was carried out and laid on the ground, and was thought to be dead or dying. However, after a few moments in the cold, fresh air, he began to cry, then to yell at the top of his voice. These yells could be heard all over the village. This crying and yelling continued for about ten minutes, when he began to come to himself. He had little sense, however, for an hour, and was not entirely normal for some five or six hours, after which time he had no more mental symptoms.

\*Read before the Ninth District Medical Society, August 10, 1921.

The increasing use of internal combustion engines and motor vehicles, and the extensive use, in recent years, of oil and gas as fuel in various industrial establishments, have caused carbon monoxide to take a place in industrial toxicology second only to lead, if indeed it is not entitled to first place, but our information on the subject is very incomplete. It is to be regretted that the subject has not been given more study. It has been studied more in England than elsewhere.

There are two carbon oxides—CO and CO<sub>2</sub>. The latter is the well known carbon dioxide, sometimes incorrectly termed carbonic acid gas. This gas will itself cause death if breathed pure or nearly pure. When mixed with water it forms carbonic acid, and we drink it at the soda fountain. Carbon monoxide is the most dangerous of all gases. It is odorless and colorless, and gives no warning of its presence. It does not irritate the eyes, or mucous membrane of the air passages, does not choke, and does not extinguish the miner's lamp. The only practicable way of testing for it is by the use of some small animal or bird. However, it is always wise to assume its presence in the exhaust gases of internal combustion engines, and thus play safe.

Many instances of poisoning, some wholesale, by carbon monoxide have been reported in medical literature. I shall mention only a few illustrative of this accident: The Health Department of New York City, not long ago, reported that 73 out of 125 operatives in a tailor shop became acutely ill from inhaling gases which blew down a chimney in the hallway and into the rear of the work room. A labor camp in Ohio was built on a large heap of cinders in the interior of which a process of slow combustion was taking place. Carbon monoxide made its way into the sleeping tents of the men, poisoning 14, of whom 3 died. In the year

1918, fifty-seven men were overcome by CO in tearing down an old blast furnace near Pittsburgh, Pa., and 25, or nearly half of them, died. Recently in a large garage, in New York City, seven men were overcome by CO because some trucks, whose engines had been started, were held up by a traffic block, and for several minutes continued to run and discharge their exhaust gases in the garage, which like most garages, had only a front entrance, with the rear closed, thus precluding any through draft. Reform in the construction of garages so as to insure proper ventilation, is a thing that needs attention by health authorities in all towns and cities.

Investigations recently made in the bureau of mines by Mr. A. C. Fielder and his associates have shown that an automobile engine with a defectively adjusted carbureter may produce 2 or more cubic feet of carbon monoxide per minute. Such a car running in a small garage, say 10 by 20 feet, with doors closed on a cold day, will make an atmosphere dangerous to life within five minutes. An adjustment of the carbureter to give a thin mixture decreases, and a thick mixture increases, carbon monoxide production.

Because of its strong affinity for oxygen, carbon monoxide is of great importance as a deoxidizer in metallurgy, and other industrial arts. A detailed description of the various industrial enterprises in which CO poisoning is a possible danger to the employes would not likely interest the members of this society, but there are some things about this subject that every one should know. One part of CO to 2000 parts of air is enough to be injurious, and 2 parts per 1000 of air is dangerous to life. It will thus be seen that CO is an extremely dangerous gas. Carbon monoxide is responsible for most of the deaths in great fires, and from illuminating gas, and charcoal fumes. It is claimed that CO forms in a partly filled silo, and that laborers should not enter these structures, when partly filled, until the fan has been run for several minutes. CO is always formed in a smothered fire. It is produced when combustion takes place with a *scanty supply of oxygen*. When coal is burned in a grate, the coal

at the bottom of the grate, where oxygen is abundant, burns to CO<sub>2</sub>, but as this gas passes through the bed of heated coals, where oxygen is scanty, it is reduced to CO, and this CO, when it reaches the top of the bed of coals, where there is free air, burns to CO<sub>2</sub>, and as such passes up the chimney. When coal is placed on top of a fire CO is driven off above the coal and passes out of the stove as CO. Illuminating gas in America may contain as much as 30% of carbon monoxide.

The danger from carbon monoxide comes from the remarkable affinity that hemoglobin has for this gas, which is 200 times greater than for oxygen. On account of this extraordinary affinity small quantities of carbon monoxide in the inspired air enter into combination with the hemoglobin at the expense (exclusion) of the oxygen, and the tissues of the body thus suffer from oxygen starvation. This combination of CO with hemoglobin, however, is not stable and disappears in a few hours, leaving the red corpuscles ready to resume the work of taking on oxygen again in a normal way. However, all the CO does not immediately pass out of the body, and has been detected in the blood several days after the accident. Henderson, who has given much study to this subject in England, and is considered an authority on carbon monoxide poisoning, claims that the damage to the nerve cells by oxygen starvation continues to progress after normal exchange of gases has been restored, and he explains all the lesions following Carbon monoxide poisoning upon the grounds of this temporary oxygen starvation. Geppert insists that there is more than this, and calls attention to the fact that oxygen starvation acts as an accelerator of respiration, while carbon monoxide does not. In other words, if carbon monoxide had no other effect than to exclude oxygen then we would expect to find accelerated respiration when this gas is inhaled, but as a matter of fact this does not take place. Fatty degeneration of the capillaries, and fatty changes in the muscular coats of the arteries have been observed. Sibeles found disseminated encephalitis, and other writers have noted foci of brain softening. Patients who have died of CO poisoning have often exhibited mental disturbances of various



kinds. Paraplegia of the sciatic, facial, and radial nerves have been noted, and more rarely general paralysis. Mental derangements, usually in the form of confusional insanity, often follow CO poisoning. This may partially clear up, but the memory remains defective for a long time. Depression, and physical and mental exhaustion are characteristic symptoms. There is lack of initiative, and the will power is weakened in a striking manner. After recovery from an acute attack relapses often occur, so that one feels uneasy about these patients for a long time. After apparent recovery, and a considerable period of fair health, these patients will sometimes develop grave mental derangements, or paralysis, which may terminate in death. Symptoms of CO poisoning come on with or without warning, according to the degree of the dilution of the gas.

Henderson states that a man who has breathed 0.2% of carbon monoxide for 4 or 5 hours will die, and that the same fate will befall one who has breathed 0.4% for one hour. The attack may come on suddenly like a bolt of lightning and the victim may fall over, and expire. Much oftener, however, the air is more lightly contaminated, and the symptoms come on more or less gradually, as in the case of Mr. R. above described. There will be felt a pressure in the head, disturbance of vision, pain in the stomach, and nausea, and confusion of ideas. Mr. R. emphasized the trouble with his eyes. As the case progresses the intelligence becomes more and more blurred, and energy and will power are lost, so that one overcome by CO gas in mine or a fire will often be found quietly sitting by a ladder or other means of easy escape, and apparently unconcerned. The victim may become completely unconscious, but more often this does not occur. Apfelbach reports 261 cases which occurred in steel mills, only 65 of whom lost consciousness.

Pneumonia often follows an attack of acute CO poisoning. It develops in about 36 hours, is lobar in type with low temperature, and a relatively high pulse rate, runs a rapid course, and often terminates in death.

**Chronic CO Poisoning.** By this term is meant, not the condition of ill health that

follows an acute attack of CO poisoning, but an impairment of health that results from inhaling minute quantities of CO gas over a considerable period of time. Chronic CO poisoning is a subject that should interest every member of this society, but as yet our information concerning it is far from satisfactory. It is far more common, however, than the acute type. Dr. Alice Hamilton, Assistant Professor Industrial Medicine, Harvard University, states that a prolific cause of CO poisoning is the exhaust gases from the engines of trucks and automobiles. She asserts that a mild form of this poisoning is common in garages, especially in the winter time, when the doors are kept shut. A thorough investigation of this subject is desirable. This form of CO poisoning has been found among bakers, caused from incomplete combustion of the gas used in heating, and in tailor shops from the gas jets used to heat irons. Furnace tenders in steel mills are the greatest sufferers.

In persons who have been exposed for a considerable length of time to quantities of CO too small to cause acute symptoms an examination of the blood reveals a marked polycythemia, which is compensatory in character. The blood cells, on account of the presence of CO in the inspired air, are unable to absorb enough oxygen for the needs of the tissues, therefore nature tries to overcome the deficiency by the production of more red cells. The counts run from six million to over nine million. This increase of red cells may exist simultaneously with all the symptoms of persistent anemia. Rienhold describes a furnace tender who had been exposed to more or less gas for over a year, but was previously in good health, who developed a marked pallor, with loss of weight and strength, and whose red cell count was 9,500,000, but with only 76% of hemoglobin. Apfelbach tested a large number of supposedly healthy steel men for loss of muscular strength, as compared to another group of similar men not so exposed. Tested with the ordinary hand dynamometer, the average strength of the exposed men was 117.13 as against 134.43 for those not exposed. This shows the insidious character of this poison. It would not be surprising if an examina-

tion of garage men were to show similar results. During the last few months I have observed several garage men who were pale, and apparently weak and below par physically. One such young man I now have under treatment, who had always been strong and healthy, of splendid physique, but who developed a tachycardia, which proved rather resistant to treatment. He was also pale and nervous, and troubled with insomnia, and I have been unable to account for his symptoms on any other ground than that of slow CO poisoning. He has been working in a garage for three years. I should think that where the exhaust gases from the engine of a closed car are allowed to enter the enclosure that the passengers would likely get some quantity of carbon monoxide gas. These considerations are well worth our attention, for the accident, in any form, manner or degree is a serious one. Mental deterioration, and multiple sclerosis are known to follow exposure to carbon monoxide, in minute quantities.

**Treatment.** In acute cases the patient must be quickly removed from the vicinity of the gas, and allowed to breathe fresh air. Where practicable oxygen inhalations should be administered. Nitroglycerine and strychnine in full doses should be given. Other quickly-acting stimulants may be administered. If the patient is comatose Wilcox recommends bleeding, to be followed by the introduction of large amounts of sterile normal salt solution into the vein. Artificial respiration is a life-saving measure of first importance, and the physician will fall short of his duty if he fails to employ it, and persist in it, if necessary, for a considerable period of time.

In chronic cases I regret that I can suggest little, except to say that all the vital organs—heart, lungs, liver, kidneys, stomach, nervous and muscular systems, should be investigated, and such hygienic and medicinal measures instituted as seem likely to be useful in restoring the patient to a normal condition. The patient should, of course, be removed from the exposure, which will usually mean a change of occupation.

## COMMON ERRORS REGARDING SKIN DISEASES.\*

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Fallacies concerning the cause, diagnosis and treatment of disease are by no means limited to skin diseases, but some of them regarding the latter are so striking as to merit attempt at correction.

Probably the most common error lies in the belief that skin diseases are "blood" diseases, that the trouble "is in the blood." This mental attitude, so expressed, is rare among physicians but almost universal to the laity. The source and culture of such opinion is largely in patent medicine advertising and mouth to ear dissemination. Doctors who entertain the belief that all skin diseases are constitutional, express the same idea a little more scientifically. Until the demonstration of the spirocheta palida we thought we did have at least one "blood disease," but the mind of the people repelled such suggestion of shame, though clinging to the blood as the source of other conditions. To their intelligence there exists in the blood of patients with skin diseases poisonous elements which direct their virus against the skin.

To my mind what, if any, condition constitutes a "blood disease" is not at all clear. Is pathology of hematopoietic organs that modifies the constituent cells such a disease? Is a want of proper alkaline reserve or an over-acidity, or hyperglycemia or septicemia, or hemolytic jaundice a blood disease, or do the products of imperfect digestion or unbalanced metabolism constitute such a state? Would uremia be a similar condition, or should we say in all cases that the clear hemic stream may be contaminated or saturated with harmful poisons, conveying them for the dissemination of disease? The blood may be the vehicle, but is it ever the primary source of any poison?

An error still present in the minds of some medical men and of patients also is that skin diseases are due to uric acid. Haig's failure to prove migraine an effect of accumulation of this common substance did not prevent its acceptance as the cause of other conditions. This belief was fostered and continued largely

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through the exploitation of a certain remedy put out by a large proprietary company.

There is absolutely no basis of proof for the conclusion or statement that uric acid has any influence in the production of a skin disease.

Of somewhat startling importance in this connection is the fact that there are about two hundred major or minor skin diseases, ranging in causation through traumatic, infective, toxic and anaphylactic to those of unknown origin. Indicanuria has been incriminated in some diseases, but it is questionable if this product of putrefaction is even a key to a cause. It may be of interest to state that given a hundred people with and a hundred without skin disease, physical and laboratory examinations rarely show any difference in variations from the normal in the two classes. This forces us back to the position that in certain cases the skin is the weak part, *locus minoris resistentiae*, and owing to its fine vascular and nervous structure and exposed position the more subject to insults that reduce its immunity, and in consequence it develops dermatoses which would not occur on a less vulnerable cutaneous envelope. All of which leads naturally to the conclusion that the general condition should be improved by treatment as an aid in cure just as would be the plan in treatment of other diseased organs, but there is no specific internal treatment for skin diseases.

Often patients speak of certain eruptive conditions as "indigestion." It is true that products of imperfect digestion or metabolism may react to produce skin diseases of certain limited kinds, or at least induce or facilitate both difficulty of cure and relapses. Naturally, metabolic toxemias and anaphylactic states have not yet become a part of lay medicine.

Errors in diagnosis may do little harm in some conditions while in others they mean serious injury to the patient.

Patients' dermatologic nomenclature is limited to very few names. "Tetter" is still a leader, closely followed by "eczema;" an occasional "acne" trips glibly from the tongue, and none of these opinions amount to anything. A not uncommon mistake is for people to agree that they have exactly the same disease, and expect treatment given for one to cure the other.

No more dangerous fallacy exists than is present in the belief that a lesion or growth cannot be cancer because it causes no pain. Attempts are being made to educate the public out of this opinion, but it is a difficult problem because to the patient subjective symptoms are of greater importance than are those of objective character.

The true facts are that many potentially fatal diseases produce no pain until they have reached their terminal stage.

A baseless error, so far as anatomy and physiology show, is that nevi of various forms congenital in type are "birth-marks" or "mother-marks." Aside from the fact that there is no neural connection between mother and fetus and that the toxins of shock or fear could scarcely pass as such, it is also true if this action could occur that every woman's child should be marked.

I believe that the number of doctors who still think that positive Wassermann brands as syphilis every eruption on the skin is limited, even as there are few who now eliminate the possibility of syphilis because of a negative reaction in the presence of definite syphilitic skin lesions. A fallacious conclusion that is not uncommon is the diagnosis of syphilis in every negro who has an eruption or sores. He may have syphilis, but his lesions are often not, and specific treatment fails to cure.

There is enormous confusion as to the question of diet, and the following of fads or lay advice often leads to gross error. One person insists that certain kinds of meats should be excluded; another advises elimination of all meats. The latest is the anti-sweets dictum. Diet is a matter of individual cases, and a general rule cannot apply to all, or even to a few of the many diseases of the skin. Anaphylactic conditions are sometimes easier to work out. If the protein or proteins at fault can be identified, it is a simple thing to exclude them, or, not quite so easily, desensitise the patient.

A particularly absurd practice, encouraged by barbers, is singeing the ends of hair to hold in its sap and stop it from dying and falling out. As the hair is a solid epithelial structure, the only fluid it can contain is such as is absorbed from the outside. In-curved or in-



grown beard hairs are extremely rare, but the removal of such alleged distortions is a rather frequent practice. If one stops to consider the mechanics involved he will conceive that the proper plan is to extricate the distal end of straighten it out, clip not too short, and thus and thus prevent the curl that would perhaps follow in a successor, to the epilated hair. The hot towel process employed by barbers in their shaving operations is extremely uncomfortable to many men and injurious to certain types of skin. The use of hot water on the face, so common among women, is a needless cooking, while immediate following of the hot water by rubbing with ice is foolish. Medicated soaps are useless. Soaps are simply either good or bad, weak or strong, or fakes.

That an occasional massage of the scalp, the use of a vibrator or certain hot oil treatments can act as more than the most transitory stimulant is simply a fallacy.

Although the use of greasy applications, as cold creams, on the face is a common practice of women, those who have hair on the face, or fear of it, almost universally believe that one or another of the oils or greases will either induce or increase the growth. Where this theory originated is unknown, but they view with horror a suggestion of the use of such substances for any purpose. The argument that if these ideas were correct there need be no bald men is of little influence in changing their fixed obsession. Greases do, however, contribute to the formation of blackheads.

That men becoming bald more frequently than women is due to the wearing of tight and unventilated hats is scarcely a logical statement. If one incised a branch of the temporal artery and attempted to check the hemorrhage by putting on his hat, he would discover how little a hat checks the circulation. There are more practical reasons for baldness or its absence.

Whatever may be our feelings regarding powders and rouge, it is unfortunately true that their use is of little, if any, actual injury to the skin save in rare instances, though they do seem to deprive it of its natural wholesome appearance, as shown, when they are left off, by a sort of flabby pallidness.

Although dermatologists have for years urged

caution in the use of arsenic internally and its employment is recommended less and less as time passes, it is erroneously prescribed by many men in varied conditions. If it were known that the ingestion or injection of arsenical preparations is followed by stimulation and irritation of the skin, its use in inflammatory eruptions would be abandoned. Small doses have their value in a tonic, constitutional, not cutaneous direction. Large doses, to saturation, and long continued, are sometimes helpful in the treatment of certain subacute, chronic, tough dermatoses, but in view of effects on the digestive tract and the occasional production of arsenical lesions of the skin, some of the keratotic forms of which may become malignant, it would seem that it were best to discard the drug save in one or two conditions.

The arsphenamins have not been included in the above criticism because their main field is syphilis, yaws, lichen planus, tuberculides, etc., scarcely coming to the attention of the general medical man, and these drugs having failed of effect in the large majority of skin diseases. At times arsphenamin produces a violent dermatitis after intravenous use. Sodium cacodylate has never seemed to me of any value in the treatment of the skin.

Stock and autogenous vaccines have had a most wonderful vogue in the hands of many men, patients often even demanding them, but their sphere is exceedingly limited, they being of no value in acute disease, and of doubtful utility in the chronic, as their nearly one hundred per cent. failures in acne show.

The universal habit of applying tincture of iodine to all forms of skin disease, fostered and disseminated by doctors, Red Cross and the Army, is so full of error that its discussion will be reserved for a special article. Suffice it to say at present that the drug is an irritant and a mild caustic. Being these, its application to acute eruptions or tender skins is harmful, while its use on resistant lesions or growths is futile. I feel that personally I would almost rather take my chances with liquified carbolic acid for all around purposes.

It is rather well established through my own experience that surgical germicides are not useful, in fact are harmful, in the large majority

of skin diseases, however definitely infective these diseases may be. This is because of their inability to reach the organisms and their irritating properties.

While purgation is indicated in certain cases as a preliminary clearing process, the further continuance of this treatment is wrong, because of the gastro-enteric disturbance entailed, as well as abnormalities of appetite and digestion so induced.

We perhaps know the etiology and proper treatment of the many skin diseases as well as is known regarding other disease, much we still have to learn, and the persistence of error simply retards real progress and understanding.

It is an almost hopeless task to educate people as to their medical errors, to a conception of logical and sensible sequences, to have them stop and reason a thing out, because the easier way mentally is just to take the other person's word for it, and let it go at that. We medical men, however, should be open to conviction of error as the only possible hope of progress from the inertia of a fixed mental habit, and it is an axiom that we get more real knowledge from conviction of our mistakes than from what we think we know and do correctly. It has wisely been said that the practice of medicine, or medical knowledge, of the people today is the practice and knowledge of doctors of yesterday, though many think they are keeping pretty closely up with us.

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### THE TREATMENT OF EPILEPSY.\*

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Epilepsy has been known and described since the earliest times. In fact it is one of our ancient diseases. Hippocrates wrote of it and his views concerning its prognosis are still relatively accurate. An enormous literature concerning the causation and treatment of this disease has accumulated through the ages. The word epilepsy implies "seized upon" and is rather vividly descriptive of a typical attack.

The earlier ideas of the etiology of this malady reflect the superstition and ignorance of the human race at different periods of its development. For hundreds of years it was believed to be caused by possession with evil spirits and demons. Later it was ascribed to the existence of body vapors and humors. Still later it was considered that the innocent victims were bewitched or afflicted by mysterious and supernatural agencies. As knowledge increased, more material causes were assigned, many of which have proven to be fanciful. At present we are able to assign a cause for the disease in a small percentage of the cases, but a large percentage still remain, concerning which we are unable to make definite statements.

The disease, which is really a symptom-complex, is not by any means rare. Every practicing physician is confronted by many cases which tax his resources as well as his patience. It is probable that at least one out of four hundred of the population is afflicted with epilepsy. In view of its frequency, it may easily be seen how important is the consideration of those methods most valuable in combating so dreadful an affliction.

Few diseases cast such a pall over their victim. The patients are constantly in dread of an attack, their lives are lived more or less apart from their fellows, they are frequently prevented from obtaining educational advantages, from travel, and from enjoying the pleasures and taking part in the obligations of daily life. These patients have the same desires and hopes as other human beings and yet are unable to gratify their normal desires. Marriage, to which normal human beings look forward, is for them a thing to be advised against. Small wonder it is, then, that they are apt to become morose, suspicious and gloomy. Small wonder is it, then, that they are apt to become insane. One is tempted to echo their wail of despair: "Is there no help and no hope?"

It is, of course, to the physician that the patient and the family turn for help. Is the medical profession as a whole doing all in their power to relieve the victims of this

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disease? Are the cases receiving the care and assistance which they deserve and which they must have in order for improvement and possible cure to result? Too often, in the past, and possibly even now, nothing more is done than to give a prescription for bromide. Before long, as a result, the patient is disfigured by acne, dulled in mentality, the intestinal tract is disturbed, and the patient although possibly relieved to some extent of the attacks, is rendered perhaps even more pitiful than before. In view of the knowledge we have concerning the etiology, in view of the frequency of the condition, and in view of the importance to the patient and his family of careful and adequate supervision and treatment, this paper is presented in the hope that it will result in some help to this large number of unfortunates.

### Remarks on Etiology.

Every disease is best and most effectively treated in which the cause is found. In every case presenting the epileptic syndrome, a complete diagnostic study should be made. Probably in no other condition should such a study be more thorough. The following scheme is suggested and advised.

First, the obtaining of a very careful history in which the patient's life story is traced from the period of conception to date. The family history for three generations is to be scrutinized, paying special attention to such points as a suggestive history of syphilis, of alcoholism, or of the abuse of drugs in the ancestry. Intensive familial studies, such as are recommended by Scholl, may at times throw additional light on the etiology especially in the congenital syphilitic cases.

Second, a very complete physical and neurological examination. The physical examination should include a survey of the entire body not omitting the genito-urinary system. The neurological examination should include a survey of the endocrine system as completely as possible. Any indications of endocrine disturbance should point to a more detail investigation in this domain.

Third, laboratory study. A complete blood and spinal fluid study should be made

of every case. The Wassermann test should never be omitted. A study of the urine and feces should be routine, and when indicated a gastric analysis.

Fourth, x-ray study. It is doubtless important in all cases to have a careful radiogram of the skull with special reference to results of trauma, to deformities of the sella turcica, to any other bony abnormality and to the condition of the sinuses. In addition, the teeth should be subjected to x-ray study for the existence of apical abscesses.

Fifth, a detailed eye examination should always be made. The eye study may reveal a number of things among which the most important are evidence of intracranial pressure, evidence of syphilis, hemianopsia and errors of refraction.

As a result of such studies as are indicated above, some of the following causes may be demonstrated to be the efficient cause in producing the syndrome, epilepsy.

#### 1. Epilepsy the Result of Gross Brain Lesions.

Brain tumor or abscess.

Meningitis (different types).

Bony pathology, bony growths of the skull, fractures and other bony abnormalities.

Cerebral arterio-sclerosis.

Encephalitis.

Multiple sclerosis.

#### 2. Epilepsy the Result of Microscopic Brain Lesions.

Those cases caused by some toxic agent, the result of chronic disease such as nephritis, diabetes or tuberculosis.

Those cases the result of metallic poisons such as bromide, lead, arsenic (including salvarsan).

Other poisons such as alcohol, carbon dioxide.

Certain cases the result of malarial or other parasites.

Those cases the result of changes in the internal secretions (endocrinopathies).

Another group of cases appear to follow acute infectious toxemias such as scarlet fever, typhoid fever, influenza, measles and others.



3. Unresolved factors. These factors are possibly in the nature of toxins, either chemical or bacterial. There may also be anatomical bases for these types conditioned on bad heredity and defects in protoplasmic structure. All cases in group three we have had to call idiopathic as well as many cases in group two. The effort should always be to identify the etiological factor.

When confronted by a case of epilepsy one should keep in mind a classification such as indicated above with a view to determining the therapeutic procedure based upon the cause of the disease if possible. However, in quite a large percentage of the cases (possibly 80%), we cannot assign an efficient cause following the most careful diagnostic scrutiny. We then are obliged to say that we are dealing with an idiopathic case of epilepsy meaning that we are unable to assign a definite cause. Even under such circumstances, the study of the case is valuable in that any irritative lesion or demonstrable abnormality which may be acting as an exciting cause for attacks, may be discovered and properly handled. The question now arises what shall we do for this group of cases where we cannot demonstrate an efficient cause. It is to the treatment of these, the idiopathic group, that I desire to invite attention. Much might be said of the other groups in regard to their management and the best methods for attacking them when the cause is shown. Such a discussion must be left for later consideration.

#### **Treatment of the Idiopathic Cases.**

The following plan based on the most recent favorable experience is suggested:

First, the dietary management. Experience has apparently demonstrated the fact that the diet of epileptics should be a very simple, nutritious, easily digested one. Furthermore, they appear to do better on a rather low protein diet. For this reason, a diet limited to fruits, fresh vegetables, dairy products, well cooked bread or toast, and only such meats as chicken, fish or crisp breakfast-bacon, is advised. The patients should avoid heavy meats such as beef, pork, mutton, etc., they should avoid an excess of

carbohydrates, particularly rich puddings, pastry, cake, candy and other rich sweet food. They should particularly avoid any highly seasoned notoriously indigestible articles. Furthermore, the food should be taken regularly at meal time and in the case of young children a lunch between meals at a definite time.

It is also important that the evening meal should be quite light, and consist of not more than three different articles of food. This provides the principal meal in the middle of the day when the patient has an opportunity to fully digest the meal before retiring. It is essential that the stomach not be overloaded even with the most easily digested food. Complete mastication of food, time taken in the eating of food, and avoidance of irregular hours of eating are all points that should be carefully urged upon the patient. Stimulants are to be strictly avoided. Not only alcohol but coffee, tea and all soda water drinks are to be prohibited. Drenching the stomach with a quantity of any ice cold liquid is apt to be pernicious in its results.

Second, the general hygiene of the patient. This hygiene should be thought of as both physical and mental.

Dealing now with the physical hygiene, this should include the care of the bowels and of the skin. It is exceedingly important that every epileptic should have free elimination by the bowels every day. For this reason it is advisable that the diet should be so constructed as to facilitate free bowel movement. It is also advisable to urge free water drinking, particularly before breakfast daily, and to insist upon regular habits. In addition, mild laxatives should be given only when indicated.

The care of the skin is of importance in aiding excretion through this channel. In the old days these patients were usually disfigured by bromide acne. This condition need not now obtain. Morning baths in tepid or cool water are advisable. The shock of very cold water should be avoided. A hot bath before retiring is often beneficial. The clothing should be warm but light. Out door

exercise is important but all excitement such as occasioned by highly competitive games is to be avoided. Fatigue must not become pronounced. The patients should be warned to stop and rest when they begin to tire. In addition to the points mentioned above in physical hygiene, the care of the mouth and teeth is of great importance. The teeth should be thoroughly brushed twice daily, and a mouth wash should be used after each meal. Furthermore a competent dentist should thoroughly examine the teeth once or twice a year for any evidence of trouble.

Considering now the mental hygiene of the patient, it is of great importance to direct these sufferers into healthful channels of thought. The surroundings should be made as attractive and bright as it is possible to make them. A feeling of optimism on the part of the friends and the family should be constantly in evidence. At the same time, too solicitous care is sometimes depressing to the patient. As far as possible he should be treated in every way as a normal individual and not be made constantly to feel that he is watched and that he is different in all respects from his fellows.

It happens very frequently that the education of epileptics cannot be carried on in the usual way. For this reason, as many of them are exceedingly intelligent, home instruction where possible should be carried out so that the patients may develop real interests outside of themselves. The advantage of colonies for epileptic is that they are led into these channels of thought and activity which stimulates their initiative and renders them in a measure useful and active members of society. This satisfies a real demand of human nature and tends to lessen their feelings of uselessness and despair.

### Drug Treatment of Epilepsy:

The list of drugs which from time to time have been proposed for use in the control of epileptiform seizures is a very long one. Apparently for hundreds of years the human race has been experimenting on all possible substances in the hope that by process of exclusion one would be found which would definitely and safely control these dreadful out-

bursts. No attempt can be made to discuss even a few of the various drugs which have appeared to be of some value. Until recently the bromides appear to have best stood the test of time in controlling epileptiform attacks. It has long been recognized, however, that the continued use of these drugs was attended by extremely unfavorable symptoms. In fact many cases appear to have been made worse by their use, while others suffered what really amounted to bromide poisoning. The most recent drug to be used with quite a large measure of success in the treatment of idiopathic epilepsy is luminal. This drug has now been in use for a long enough period of time for us to form some estimate of its value. It is not claimed that the drug is a cure for the disease, but that it apparently is a most valuable agent to diminish the frequency and severity of attacks, while at the same time producing no appreciable ill effect on the patient when its administration is intelligently directed. The drug is quite closely related chemically to veronal. Veronal is chemically barbital, while luminal is phenobarbital. In other words, luminal differs from veronal in that one ethyl group has been replaced by one phenyl group. While the drugs differ apparently very slightly in their chemical constitution, the effect appears to be decidedly different, in that the phenyl group increases the hypnotic power of luminal over that of barbital. When given in therapeutic doses, no injurious action has been observed. This is especially valuable in that the kidneys and stomach have not appeared to be disturbed by the administration of the drug even over a long period of time. This, it will be observed, is a marked contrast to the prolonged use of the bromides. The therapeutic dose of the drug is in my experience to be placed at from one to three grains at a dose and given two or three times in the twenty-four hours. In exceptional cases this amount may be increased and as much as twelve grains be given in twenty-four hours. When too much of the drug is given there is slowing of the respiration although the volume of the respiration is increased.



There is a drowsiness and heaviness exhibited, and this is especially noteworthy in the speech which becomes thick. The patient appears very much like one under the influence of alcohol. This excessive action should of course be avoided.

Considering now the use of the drug in epilepsy, the best plan in the adult is to start with one and one-half grains of the drug given either in tablet or capsule form twice daily. Frequently the drug given in this amount is capable of causing either a marked reduction or a cessation of the attacks. If the attacks persist a third dose of one and one-half grains is given, making three doses a day, one after each meal. If the attacks still persist, though diminished, and if there is no undue effect of the drug as shown by abnormal drowsiness, an extra dose may be given at bed time. But, by gradually increasing the amount of the drug up to a safe maximum, a very large number of the patients may be most favorably effected by its introduction. It is of course important to remember that all of the preceding therapeutic measures should be employed in every case. The drug treatment of the disease should be the last matter to be brought to the attention of the patient and his family, strong emphasis being placed on those other points in the management of the case which have already been discussed in this paper.

It appears there are cases in which a small amount of bromide may be given in connection with the use of luminal. The amount of bromide in such cases may be very small and thus less than is sufficient to produce signs of bromism. By using luminal alone in varying amounts, and by combining in some cases the use of luminal with the bromide, in idiopathic cases, a most favorable effect may usually be obtained.

In selected cases a complete drainage of the spinal fluid at intervals appears to have been of distinct value. Some time ago I noted that after draining spinal fluid for diagnostic purposes, the patients appeared to be better and to go for a longer period than usual without attacks.

I began then to try the effect of drainage for therapeutic purposes and while the number of these cases is too small as yet for one to draw conclusions, I feel that in those cases which have had spinal drainage done there has been an improvement which could be attributed to the drainage itself. It is not advisable to make frequent punctures, but at intervals of two to six months to drain the fluid completely. This method is still under trial but I feel is worthy of mention.

A few illustrative cases are appended in summary, showing the effect of the drug and of the method of treatment as advised in these patients.

#### Illustrative Cases.

Case 1. A business man, age twenty-eight years, consulted me first in the early part of 1918. Since the age of twelve years he had been subject to attacks of epilepsy, at first appearing only a few times during a year but gradually becoming more frequent, so that when seen he was having anywhere from two attacks a day to one in several weeks. This patient had taken a great many different types of treatment some of which were rather radical but without any lasting improvement. He was placed upon the regular dietary and hygienic plan and the use of bromide of sodium was begun. He showed some improvement over a period of a year or two under the use of the bromide with an occasional laxative. The attacks came less frequently and less severely but continued to persist in spite of this mode of treatment. The case was one of idiopathic epilepsy as no definite causative factor could be discovered.

In June, 1920, he was put on luminal treatment. This began a new epoch in his life. Since beginning this plan combined with an occasional lumbar puncture with spinal drainage, his attacks have become infrequent. During the past year he has had no major attacks whatever, and at rare intervals of perhaps three or four months a slight minor seizure. The patient is enthusiastic over his improvement and is very active in business.



Case 2. A school girl, age fifteen years, was first seen in the fall of 1918. For one year she had been having minor attacks at intervals of every few weeks. This case proved also to be one of idiopathic epilepsy. She was placed at first upon bromide treatment in addition to the hygienic and dietary regime. Her condition was benefited but the attacks did not entirely cease. In November, 1920, she was put upon luminal treatment in addition to a small dose of bromide at bedtime each night. Under treatment by this plan, she had only one minor seizure during the year just passed. She has gained in weight, is much better in her disposition and shows no evidence of trouble at the present time. This child was much upset, worried and melancholy over her condition.

Case 3. A young woman, age twenty years, was first seen in the early part of 1921. She began to suffer with major attacks at the age of sixteen and continued to have them every one to five weeks in spite of the orthodox and customary bromide treatment. After continuing this treatment for several years she became discouraged and would not take bromide regularly for which she could not be greatly blamed. For the three weeks before being seen she had taken no medicine and was having minor attacks daily with a major attack on an average of once every five days. The patient was a young woman of unusual charm of manner and intelligence. She was well nigh desperate over her condition. The case was one of severe idiopathic epilepsy. She was placed on a strict dietary and hygienic plan and in addition put upon the luminal treatment. According to her report since February, 1921, through November, 1921, she has had only four epileptic seizures. The first one after treatment was begun was in March and was a light attack. One occurred in June and two in October. She has been much encouraged over her condition and is enthusiastic in carrying out the details of her treatment.

Case 4. A printer, age thirty-seven years, was first seen in November, 1919, complaining of attacks of unconsciousness which on

investigation proved to be typical idiopathic epilepsy. The attacks came at irregular and sometimes prolonged intervals. He was placed upon the orthodox bromide treatment and the hygienic and dietary plan. He was lost sight of until July, 1920, when he returned stating that he had had three or four attacks since the date of his visit and that he had abandoned his diet and treatment. A lumbar puncture was done the results of which on laboratory examinations were negative. On July 5th, 1920, he was placed on luminal treatment which he has very carefully followed until the present time. During this period of more than a year he has had only one very slight attack during his sleep and is elated over his improvement.

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### SEGMENTAL DIAGNOSIS OF SPINAL CORD LESIONS.\*

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Clinical diagnosis of spinal cord lesions is made with reference to spinal cord segments, using the vertebral spines as our landmarks.

The spinal cord is heir to more than fifty maladies, including the various forms of traumatism, to which it is subjected. If we exclude infantile paralysis, myelitis and locomotor ataxia, this number can be reduced by about three-fifths.

Non-traumatic vascular diseases, such as hemorrhage, thrombosis and emboli are exceedingly rare. Tumors of various kinds are more common, though frequently unrecognized. Congenital and acquired deformities and anomalies, together with complicating affections of the meninges, help to swell the list.

During the World War about one-sixth of the severe wounds, were wounds of the nervous system. Injuries of the peripheral nerves representing about 65%, those of the brain about 25% and those of the spinal cord about 10%.

The tracts of the cord are located in the periphery. The motor tract which is composed of

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the crossed and direct pyramidal tracts, is descending in its course. It passes through the anterior horn of grey matter, and extends from the cerebral motor centers to the anterior roots. The crossed pyramidal tract is located in the posterior part of the lateral column, its fibers crossing in the pyramids of the medulla. The direct pyramidal tract is located in the anterior column, bordering on the anteromedian fissure. Its fibers cross in the anterior commissure to the opposite anterior horn.

The sensory tracts are made up from Gower's tract, and the direct cerebellar, which are located in the superficial part of the lateral column, together with the columns of Goll and Burdack in the posterior column. The column of Goll and the direct cerebellar, pass up to the cerebellum. The fibers of Goll crossing in the medulla, and transmit muscle and coordination sense. The fibers of Burdack cross immediately to the other side, and convey in part the sense of touch and pain. By keeping these anatomical and physiological facts in mind, the segmental diagnosis of spinal cord lesions is greatly simplified.

When there is an interruption in the pyramidal tract, there results a central neurone paralysis. The paralysis is of a spastic character, the knee jerks exaggerated. Trophic atrophy is not noticeable, and there is no reaction to degeneration. In a peripheral neurone paralysis just the opposite condition is present. The degeneration with atrophy is rapid, absence of deep reflexes and no electrical reaction. This indicates that the destruction has taken place in the trophic centers located in the anterior horn of grey matter. The trophic centers for the sensory fibers are located in the ganglia of the posterior roots.

Partial lesions of the cord are often confusing. A lesion in the white tract will result in a spastic paralysis, and loss of muscle sense on the same side of the body. On the other side of the body there will be loss of pain, touch and temperature. The reflexes will be exaggerated, and hyperesthesia with occasional painful paresthesia will occur on the injured side. This is the most common condition we meet with, and is known as the "Brown-Sequard" syndrome.

A complete transverse lesion of the spinal cord means a complete motor and sensory paralysis of all the parts supplied by the nerves arising from the cord below the lesion. Reflexes are lost, and the paralysis is flaccid and permanent. The intervening atrophy is not due to the lesion, but to disuse. There is no reaction to degeneration. The increased warmth of the skin is due to the paralysis of the vaso-motor centers. Bladder and rectal control is lost. There is anemia of the viscera. Priapism is present, and a strong predisposition to decubitus. A diagnosis of complete transverse lesion of the cord can be safely made when there is a persistence of these symptoms.

Lesions affecting the upper part of the cord, produce oculo-motor-pupillary symptoms. The pulse, vaso-motor secretory, respiratory and reflexes are affected. If there is a sympathetic symptom complex, characterized by spinal myosis, enophthalmus, and a narrowing of the space between the eye lids, we can expect to find a lesion in the region of the cervical sympathetic, or in the centum-cilio-spinal, or affecting the roots and ramifications of the lowest cervical and two upper anterior dorsal roots.

When there is a lesion in the third or fourth cervical segment, or in the region of the phrenic center, respiration will be so seriously affected that death is usually the result. When death does not suddenly intervene, there will be vomiting, cough, dyspnea and hiccough. The transitory slowing of the pulse is due to the irritation of the vagus centers in the medulla. A persistent bradycardia, with a high temperature, 108 F. to 111 F. may replace the former, or the opposite condition may prevail with bradycardia, and temperature descending from 89 F. to 86 F. However this may be, it is due to the heat regulating centers in the medulla. Together with these symptoms, we find that the vaso-motor innervation of the face and the secretory fibers are affected. First by heat and redness, and later by coldness and cyanosis of the skin surface. Anidrosis is the rule, but hyperidrosis is not uncommon. If the upper four cervical segments are affected, the termination is invariably fatal.

Lesions affecting the lower segments of the cord, produce symptoms in the rectum, bladder



and sexual organs. The bladder is controlled by the motor fibers of the spinal centers which are located in the grey matter of the third, fourth and part of the fifth sacral segments. Impulses from these centers are both cortical and sub-cortical in situation, and reach the sacral cord by way of the antero-lateral column. The rectum is controlled by the same sacral segment as the bladder. The principal difference between them is that the former is both cortical and sub-cortical, and those of the latter are only sub-cortical. Where there is a permanent paralysis of the sphincter, a lesion will be found in the centrum-ano-spinal. When the voluntary control of the bladder is interfered with, a lesion will be found to exist above the centrum-vesico-spinal. If on the other hand, there is a constant dribbling of urine, due to permanent relaxation of the sphincters and detrusor, the lesion will not be above the centrum-vesico-spinal, but in the immediate region.

The inhibition of the sexual function, points to a lesion in the first three sacral segments of the cord. The degree of inhibition depending upon the extent of the lesion. Here we find that the cells are partly sympathetic of the hypogastric plexus, and partly spinal.

These are connected with the medulla and brain through the lateral column of the cord. The loss of tonicity of the transverse perinei, bulbo and ischio-cavernosa can be traced to some lesion in the gray substance of the third and fourth sacral segments.

Not only will a pathological condition in the nuclear or sacral region of the cord cause disturbances in the function of the rectal, vesical and genital organs, but any disturbance in the supra-nuclear cells at any level of the cord. Actual priapism results when lesion is located above the centrum-genito-spinal, and complete impotence supervenes when the lesion is within it. The erection centers are located at a higher level than the ejaculatory centers, which accounts for the possibility of an erection, with an impossibility of ejaculation.

Injuries in the lumbo-sacral region produce injury to the cauda. The symptoms following will resemble those following injury to the lumbo-sacral cord alone. Pressure symptoms at a lower level than the injury is due to the

blood draining down the spinal canal, and forming a hematoma at the bottom. If the hemorrhage is within the cord, we usually find it located in the posterior horn.

Every affection of the spinal column and cord should be considered serious until proven other wise. Too often patients complaining of some malady in their backs, are superficially examined, and therefore, inadequately treated. Many unfortunate individuals go from one doctor to another; from one clinic to another and from one hospital to another, not because they are malingers or neuresthenics, but because they do not receive the relief for which they are seeking. The great diversity in diagnosis is ample proof of this contention. In my own experience I have interviewed patients who have been treated by as many as eight different doctors, and branded with as many different diagnoses. This is a sad commentary on our diagnostic acumen.

The degree of success following surgical operations on the spinal cord, will depend upon the correct localization of the lesion. It is absolutely essential that we know what segment of the cord is affected, and whether the lesion is anterior or posterior, right or left, central or peripheral, together with a thorough understanding of the nature and degree of the disease or injury before treatment is instituted.

## INFECTION OF THE MAXILLARY ANTRUM.\*

With Report of Fifty Cases.

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Strictly speaking we will consider none other than the acute and chronic empyemas of the antrum, except merely to mention the malignant and benign growths of the antra, which are rare in relation to other parts of the body. Certainly seldom found.

The most common of all antral infections are the acute catarrhal conditions which usually occur with an acute coryza or a pansinusitis in which we have a congested mucous membrane with a watery discharge from the nose and a

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feeling of fullness over the antra. However, with shrinkage of the mucous membrane of the nose, to allow free drainage, this condition lasts only a few days then subsides.

The acute empyema of the antra is most common of all diseases of the sinuses and usually lasts, under treatment, from ten days to two weeks. The paramount etiological cause is acute rhinitis, as over fifty per cent comes from acute coryza, with some obstruction to the breathing. We find these cases bilateral at times following pan-sinusitis and are extremely painful.

A large number of cases of acute empyema of the antra have their point of origin from the teeth and with simple puncture and lavage the tooth may be saved and the antra infection cleared up.

The symptomatology of acute empyema of the antra is said to be characteristic, as we have profuse drainage, odor, pain (which is a dull ache) and usually loss of smell, a sense of fullness and tenderness of the teeth on the side affected. Headache is usually referred to the eye and the supraorbital area above the eye. Frequently, however, we have an antrum filled with pus and none of the symptoms are present. Yet there is always a loss of appetite. With one lavage a decided improvement is noticed.

Tenderness of the hard palate in the mouth is always present. We rely on transillumination of the sinuses much more now than in the past. This is as reliable, if not much more so, than the x-ray.

The inside of the nose shows an acute congestion, especially of the middle turbinate bone and pus is usually seen under the middle turbinate.

Thirty-seven cases of the fifty were acute empyema of the antra. The duration of the disease, unless caused by the teeth, was from ten days to two weeks.

Chronic antra infections are the most problematical with which to deal. Ten cases occurred in our service which were operative. Four cases occurring from gun-shot wounds with the bullet passing directly through the antrum.

In passing we might say that whenever a bullet passes through the antrum we are always sure to have a chronic antrum infection to fol-

low. The wall which the bullet strikes is chipped out so that a small piece of the bone is left in the antrum and acts as a foreign body, and later polypi form which are followed by the discharge.

Symptoms of chronic infections of the antra are not as pronounced as the acute. Frequently there is pain, but in some cases there is an acute attack superimposed on a chronic condition and in this condition symptoms are the same as in the acute.

With chronic conditions of the antra we usually have a nasal deformity with obstruction to the breathing, or some other sinus infection such as the frontal sinus draining into the antra through Sluder's duct or the history and marks of a gun-shot wound. However, there are many cases occurring from the damming back of the secretions by polypi and infections from intra-nasal operations. Many chronic antra have their origin of infection from the teeth.

Transillumination of these cases is very satisfactory. Light never passes through the affected side as it does the normal side. We also have a history of long continued discharge from one side of the nose, loss of weight, dizziness at times, may or may not have loss of appetite and sense of smell. These patients show a slight degree of tenderness over the antra. The mucous membrane above the teeth on the affected side is usually congested; also the hard palate appears darker sometimes.

X-ray aids in the diagnosis. We prefer Water's position to Law's for in this position one gets a much clearer view of the antra, as the wings of the sphenoid bone are not outlined across the antra as they are in Law's position. However, we do not rely alone on the x-ray as they are often misleading, especially if the interpretation of the Roentgenologist is accepted.

The operator must be able to interpret his own sinus plates, as to make a diagnosis the x-ray plate must be taken into consideration with the symptoms, history, transillumination and presence of pus or polypi in the nose.

Before the advent of the modern Rhinologist practically all infections of the antra were referred to the dentist for treatment, and it has been in the past and still is the practice of many dentists to pull the incisor tooth to drain the

antrum. In this treatment one loses a very valuable tooth and this is really not the point of infection in so many cases as one might think. Only twenty-five per cent. of infections of the antra come from carious teeth projecting into the antra. However, it has been our opinion for some time that the Rhinologist and Dentist should work together in these cases, as it has been shown that three-fourths of all infections come from some source other than the teeth, but in the event one can find no other cause it is advisable to have the opinion of the dentist on the teeth and the teeth properly treated.

Should polypi be present in an antrum our idea is to be as radical as possible in our treatment as we feel that conservatism (which is the plea of some operators) is used to justify timidity and surgical inefficiency.

We cannot too strongly condemn the operator who goes through the canine fossa and cleans out the antrum without regard for the nasal cavities, as many oral surgeons do at the present time. It has been very forcibly brought home to us that whenever the antrum is opened through the canine fossa and the antra-nasal wall not touched the result is that many cases will eventually need opening again, for in this way you have only established a drainage for a very short time.

It has been the practice of some men to do radical operations without removing any obstruction to the nares, when it is present and it has been our experience to find that this obstruction (such as a deviated septum) will have to be corrected at a later date to obtain good results.

One of the rules in sinus surgery, the same as in any other surgery, is free drainage from the lowest angle; also to clean up the source of infection, as many cases of antral infection come from the frontal sinus through Sluder's duct. The frontal is infected, discharging pus which drains down into the antrum and the antrum acts as a reservoir. In a case like this we deem it best to operate the frontal sinus first and then the antrum at the same sitting, for if the antrum be operated alone we have not helped matters and have the same condition returning within a short time.

The operation for chronic antrum infection

which we have found to be most effective is a modification of the Caldwell-Luc operation, *except* that the inferior turbinate bone is not removed. An incision is made through the mucous membrane of the upper lip as it curves from the lip to the gum and the muscle and periosteum stripped up then an opening made through the canine fossa, the same as the Caldwell-Luc, except nearer the nares. The opening large enough to allow free inspection of the antral cavity which is then curetted with a flexible curette. Then the antro-nasal wall is almost wholly removed from the attachment of the inferior turbinate to the floor of the nose, the antrum swabbed with a Compound Tincture of Benzoin Solution and the cavity packed with vaseline packing. No sutures are taken in the external incision as this usually heals in three or four days. The packing is removed the following morning and the antrum irrigated through the antro-nasal wall on the third day with normal saline. Profuse drainage of a sero-sanguineous fluid follows for the next two or three days.

Infection of both antra is not so frequent. Two cases were acute and one chronic. A radical operation was done on both sides under the same anaesthesia. The patient suffered very little more soreness than had only one side been operated.

However, we have come to the conclusion that whenever there is more than one chronically infected sinus, it is much better to do all the sinus operations at the same time (provided we are sure they contain polypi).

The question arises as to how long before the antrum will be normal after a radical operation? To our mind, after a radical operation on a sinus, the sinus is never normal again. The bony wall becomes sclerosed and it never has the same feeling as before. The x-ray thereafter shows a marked thickening of the antral walls.

Of the fifty cases they were divided as follows:

Acute .....	37
Chronic .....	13
Bilateral .....	3
Male .....	23
Female .....	27



Duration of acute—approximately two weeks.  
 Duration of chronic—approximately one and one half years.

Infection from teeth.....12

Infection from frontals..... 6

Radical operations.....10

#### SUMMARY

Antral infections are much more frequent following nasal conditions than arising from the teeth.

Lavage of the antra in acute conditions is the most satisfactory treatment, since with three or four irrigations an ordinary acute empyema will clear up.

Chronic antra are best treated by radical operation, preferably the Caldwell-Luc operation or a modification with the cleaning up of other nasal pathology.

### IMPORTANCE OF THE PROPER INTERPRETATION OF THE PRIMARY SORE\*

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Osler has well remarked, "Know Syphilis in all its manifestations and relations and all else clinical will be added unto you." One may also say, "Know the chancre in all its manifestations and relations, institute prompt and proper therapeutic measures, and obviate the necessity of looking for specific constitutional symptoms."

We are indeed indebted to some of the pioneers on Syphilis, e. g., Ricord, Rollet, Ducret, Hunter, Fournier, Hutchinson and others who paved the way for a better understanding of clinical syphilology. However, the discovery of the spirochaeta pallida in 1905 by Schaudinn and Hoffman, the Wassermann complement fixation test in 1907, and the discovery of Salvarsan by Ehrlich in 1909, have revolutionized our treatment and knowledge of this disease.

It is of the profoundest importance that

the members of the medical profession be well versed in the proper interpretation of the initial specific lesion, whereby proper therapeutic measures can be promptly instituted and these unfortunate individuals allowed to continue with their work and mingle with the rest of the populace without the development of secondary symptoms and danger of infection to others. The records of the Surgeon General of the Army during the year ending September 15, 1918, show that of a total of 169,325 cases of venereal diseases treated in the army, approximately one-sixth were acquired after the men entered the army, the remaining five-sixths being brought in from civilian life. This shows the great prevalence of venereal infections in individuals that are daily mingling with the innocent. Rosenberger reports that out of 10,000 cases admitted to a Philadelphia hospital during 1916 and 1917, the positive Wassermanns amounted to about 27%. The records of a St. Louis hospital show that of about 3000 cases, positive Wassermanns amounted to 6.3% in the well-to-do class, and 30% among the Negro ward cases.

At a base hospital in Fort Riley during the war, the percentage of positive Wassermanns was 13.8% in the white patients, and 24.1% in the colored. At the New York Hospital for Joint Diseases, the percentage of positive blood tests is amazing. One can go on and report numerous other instances showing the great prevalence of this disease, particularly in persons who had never suspected that they had contracted the disease. In thinking about this particular phase, I have often asked myself the questions, "Why do we find such a large percentage of positive blood sera among hospital patients?" and "Why haven't their cases been diagnosed earlier and vigorous treatment instituted at the time?"

There is no doubt that the hospital clinicians, with the aid of the laboratory technicians, use everything at their disposal in order to arrive at a conclusive

\* Read at the Chattahoochee Valley Medical and Surgical Association, July 12, 1921.



diagnosis, whereas, the general practitioner allows himself to become lax, does not resort to measures at his command, does not co-operate with the laboratory workers, and does not keep in mind the possibility of complications of later life. This applies particularly to the recognition of the initial lesion of Syphilis.

Another factor that favors mistaken diagnoses can be attributed to the large number of medical charlatans who, by their clever schemes of advertising, gather these unfortunate individuals into their pecuniary net. And what are the results? Secondary and tertiary symptoms develop, the health of the patient is impaired, complications arise and untoward results follow, not to speak of the great danger to others with whom the individual might come in contact. I have seen a number of these patients who consulted their doctor regarding their "hair-cut," whose diagnosis was not verified by any laboratory work, who received nothing in the way of treatment except local applications, and in a reasonable length of time developed all the secondary manifestations of Syphilis. Are these individuals to blame? Is it their fault that they develop an aortitis or an involvement of the central nervous system, in later life? Had proper recognition and treatment been instituted earlier, constitutional symptoms could easily have been aborted.

Dr. Leo Michel of New York City, with whom I was associated a few years ago, brought out some interesting facts concerning Syphilis, the article having appeared in the *Journal A. M. A.*, last December issue. To use his words, "the treatment of Syphilis in the early primary stages of the disease, when the patient presents a syphilitic chancre, a negative Wassermann, and no adenopathy, is relatively simple and yet especially successful, as compared to the treatment of the same disease in the generalized secondary period. It is evident therefore that the earlier arsphenamin is instituted, the more beneficial its effects will be." Michel also

advanced the idea that a person known to have been exposed to a syphilitic infection, although presenting no lesions, will not contract Syphilis if given injections of Salvarsan. Stuhmer in the *Deutsch. Med. Wehnschr.*, 88; 41; 1918, states that specific therapy should be instituted in cases of suspicious genital lesions, even if the modern diagnostic efforts did not aid in establishing a positive diagnosis of Syphilis.

It is not the object of this paper to go into the various phases of prophylaxis and treatment of Syphilis, these subjects having been discussed thoroughly by various writers, but it is my purpose to stress upon the physician, the importance of clinical judgment in arriving at a diagnosis of a chancre, supplemented by the aid and co-operation of the laboratory technician. The recognition of the sore carries with it great responsibility, not only the welfare of the patient being concerned, but that of everyone with whom he comes in contact. Furthermore, its diagnosis is not as easy as one would expect it to be, as mentioned in the various text books on urology. We should look with suspicion upon all sores on the penis, whether they be herpes, fissures, or excoriations. I have heard some of my colleagues say that in their experience, it has been very easy for them to recognize a chancre by the "dark-field" method, but in my experience I have seen several typical, hard indurated sores on the genitals, with all the classical landmarks, that failed to show the spirochaetes. These cases are particularly liable to go on and develop secondaries unless specific treatment is promptly instituted.

McDonagh, in his book on "Clinical Aspect and Treatment of Venereal Diseases," states that the studies of pathology and bacteriology have played a great part in the diagnosis of venereal ulcers, but on the other hand we should not place too much reliance upon them. Pathological work should be regarded only as an adjunct to clinical judgment, since in the former there is always a possibility of

error. He believes that the sore should be first examined for the *spirochaeta pallida*, and if found positive, vigorous treatment should be instituted. If no spirochaetes are found, and one is still in doubt as to whether he is dealing with a specific lesion or a benign one, let his clinical judgment decide. This is well demonstrated in the treatment of Diphtheria or other acute infectious diseases when the symptoms or clinical signs would warrant the immediate institution of treatment, regardless of laboratory findings. Then why should one tamper with a specific lesion day in and day out until he is fairly convinced that the patient has Syphilis, and pats himself upon the back because he finds that secondaries have developed? Why wait until the spirochaetes have invaded every nook and crevice in the human body? No one will doubt that laboratory reports are at times conflicting, not because of the qualifications of the laboratory technician, but due to other factors for which he is not responsible. In reading the numerous reports that come from the pens of prominent writers, I find that in one instance, 100 cases of primary sores were examined, and in 41, the spirochaetes were not found. In another instance, 115 cases were examined, and the spirochaetes were found in only 57% of cases. The same holds true in regard to the Wassermann reactions. In early Syphilis, we usually get a positive complement fixation test about the end of the first week; in the third or fourth week, the test should be always positive, and after the eighth week, we should get a positive reaction in about 100% of the cases. Now what are the actual results that are obtained, and why the variation?

Modern medical research has taught us that the results obtained in the proper interpretation of the complement fixation test, depend largely upon three factors: the patient, the collection of the specimen, and alterations in technic. The presence of certain febrile conditions, such as malaria, yellow fever, leprosy, Vincent's angina, relapsing fever, etc., and even the in-

gestion of alcohol, may occasion positive reactions. The lack of use of proper precautions in the collection of specimens, the proper choice of antigens, the process of fixation and other incidentals, will certainly cause conflicting reports. In regard to the "dark field" method of examination of spirochaetes, it will be found that in several instances they will not be found, even though the sore is typical, due chiefly to the various phases in their development. I do not wish to convey the impression that I place little reliance upon laboratory examinations; on the contrary, as I stated in the beginning of my paper, the discovery of the Wassermann test and the *spirochaeta pallida* have revolutionized our knowledge and treatment of this disease, but we should not lose sight of the fact that our clinical judgment still holds sway.

In the proper interpretation of the primary sore, it is essential that a thorough knowledge should be had of the various types of chancres that might come under our observation. They are best classified under three groups: first, the eroded chancre, which is the most common, and which forms about 70% of all cases and is most often seen in the preputial cavity. The color is usually a dark red, rarely gray, with a flat surface, although this may vary at times. The eroded surface is glistening in appearance, and from it oozes a slight sero-purulent discharge. The induration is usually rounded, thin and circumscribed, and a false membrane may sometimes appear. This type of chancre may encircle the corona and may involve the glans penis. Multiple sores may develop. Another interesting feature is the presence of large numbers of spirochaetes, which are easily obtained.

The ulcerated chancre, also known as the Huntorean chancre, is not common, has an indurated base, and usually undergoes extensive necrosis extending at times into the derma. The edges are funnel-shaped and the discharge is usually slight.

The indurated papule, which is rare,



most often remains a dark red, flat papule, occurring usually in dense integument.

Other forms less commonly seen are: the phagedaenic chancre which is due to a secondary infection of the ecthymatous chancre, the latter chiefly involving the skin, sharply circumscribed, raised, and with a crusted surface. The spirochaetes are very difficult to find in these cases. The hypertrophic chancre occurs chiefly upon the pubis, is of large size, usually single, and generally due to an infection of a hair follicle. Another form which is occasionally seen is the herpetic chancre, which is a group of small ulcerative lesions resembling herpes prepuialis and which sometimes become confluent. Intra-urethral chancres are not at all uncommon, and the pseudo-membranous chancre which is sometimes seen is usually multiple, circumscribed, with a yellowish base and surrounded by a sharp, circumscribed ring, its location being generally upon the under surface of the prepuce.

Several other factors should be considered before reaching a conclusion as to whether one is dealing with a specific lesion or a benign one. First, the finding of the spirochaetes, which I have already mentioned, and which makes the diagnosis complete. Second, confrontation, which means the examination of the person from whom the lesion was acquired. Although this method is rarely used at the present time, I have found it of exceedingly great value in arriving at a diagnosis in some of my cases. Third, the incubation period, whereby a lesion developing in from ten days to five weeks is probably specific, unless due to other causes, such as mechanical or chemical irritation. Fourth, the development of the lesion itself, which I have tried to explain and impress upon you, and which is characterized at the onset by the appearance of a macule or a slight scratch, which persists in spite of local treatment. As a general rule, it progresses slowly, is painless, surrounded by a hard zone from which oozes a scanty, thin discharge showing a tendency to

crust. Fifth, the presence of induration. Sixth, the involvement of the lymphatics, which is characterized by the presence of enlargement of the lymph nodes in the groin and the dorsal aspect of the penis. These nodes have a tendency to become hard, painless, and generally form a chain of little tumors.

Another interesting diagnostic achievement, recently described by Klauder and Kolmer, and which ought to be of material value to us in arriving at a diagnosis, is the "local" Wassermann test performed with the surface fluid from the chancre. All the tests performed by them with the chancre fluids yielded almost uniformly four plus reactions, even before the blood became positive, and support the belief that at the site of the syphilitic lesion, there may occur a local formation of complement fixation antibodies. The study, however, is still under investigation.

Little mention has been made of the extra-genital chancres, but one must bear in mind that they do exist, and may involve the lips, tongue, fingers, head, breast, face, anus, and rarely the extremities.

Another thing which I wish to impress upon you is the prompt recognition of other lesions which might invade the genitals and which are of a benign form. Among these may be mentioned a traumatic lesion, the chancroid or soft sore, herpes genitalis, gonococcal abscess, aphthous ulcer, and some forms of balanitis. To refer to them briefly:

The traumatic lesion is painful, irregular in outline, generally surrounded by an area of inflammation due to infection, and is usually situated upon the frenum.

The soft sore is an ulcer from the beginning which becomes deeper as the case progresses. Incubation period is from one to ten days, usually from three to five. It most often occurs in the coronary sulcus, especially on each side of the frenum, and may spread either by direct extension or by contact, involving at times the anus, thighs, abdomen, etc. The base of a chancroid is irregular, of a grayish yellow



color, has undermined edges, and is covered by a false membrane. It is usually painful, bleeds easily, and has a purulent discharge which shows the bacillus Durey. The inguinal adenitis which often accompanies the lesion may be unilateral or bilateral. In the simple inflammatory type, the glands are enlarged and painful, showing slow resolution, but occasionally, however, the glands become matted together and terminate by suppuration. We must not lose sight of the fact that mixed infection with the spirochaetes may be present.

Herpes genitalis comprises a group of vesicles of nervous origin which may at times be confounded with Syphilis because of the characteristic features which may ensue. Under treatment with caustics, induration is very liable to occur, and healing of the lesion is very obstinate. Ulceration may develop and become crater-like in appearance. Pain is generally present and is a very useful diagnostic sign.

A gonococcal abscess may be mistaken for a specific lesion, but one must remember, however, that it is primarily a furuncle, that it ulcerates rapidly, and that other signs of gonorrhea are present.

An aphthous ulcer is of nervous origin and due to irritation. The lesion is most often circular, small and sharply circumscribed. The edge is not raised, but is surrounded by a red, inflammatory ring. Its base is smooth and depressed.

The erosive and gangrenous types of balanitis may sometimes simulate Syphilis, but in this condition, pain and smell are characteristic features. The lesion spreads very rapidly and causes marked destruction. The organisms causing this condition develop only under anaerobic conditions, and healing is very rapid when the parts are exposed to the air.

In conclusion, I wish to report briefly a few interesting cases which have lately come under my observation, and which have been taken at random, to illustrate the failure to recognize primary lesions, the failure to impress upon the afflicted

individual the seriousness and contagiousness of his disease, and above all, the failure to institute vigorous treatment.

**Case 1.** A young man, aged 21, came to the office March 8, 1921, complaining of ulcers in his mouth. He had been to another physician who prescribed mouth washes and general eliminative treatment, with no improvement in his symptoms. Upon questioning the young man, he informed me that a few weeks prior to the onset of the condition in his mouth, he contracted a small, insignificant lesion upon his pubis, which was also treated by a physician with local applications. Improvement at the time was rather slow, but the lesion finally healed, leaving a small scar. The remainder of the history was negative. Examination disclosed ulcerations upon the tonsils and inner margins of the cheeks. There was no glandular enlargement, and the history otherwise was negative. The Wassermann report was returned four plus, and the patient immediately placed upon intensive treatment. In this case I wish to call your attention to the fact that not only was the primary lesion overlooked, but even the secondaries that later developed.

**Case 2.** Unmarried, aged 26, came to the office May 3, 1920, his chief complaint being loss of hair and the presence of ulcers in his mouth. The remainder of the history was negative, except for the fact that several weeks prior to this, a small sore developed upon his penis, which was treated by his physician with local remedies only. Physical examination showed a number of bald areas upon his scalp, the hair thin and dry, slight enlargement of his cervical glands, and mucous patches upon his gums and tongue. There were a few scattered macules upon his chest and abdomen. The Wassermann report was four plus. Treatment was immediately instituted and the symptoms improved rapidly.

**Case 3.** W. E. S., aged 32, married, was examined August 2, 1920, for a small erosion upon the glans penis, which would

not show any tendency to heal. Associated with it was a slight mucous urethral discharge, which proved negative. The sore, which had persisted for four weeks, was treated by his physician with local remedies, and was pronounced a soft sore. Physical examination revealed a slight erosion upon the glans, which was negative for spirochaetes after several microscopic tests. The Wassermann was negative. There was a moderate swelling of the glands in both inguinal regions. Because of the indolence of the lesion, an injection of arsphenamin was administered, and within 48 hours it showed remarkable improvement, and after a few days entirely disappeared. A Wassermann was done soon afterwards, and was reported positive. Intravenous injections of arsphenamin were administered regularly together with the mercury injections, and improvement was very noticeable. There were no active or visible signs of secondary Syphilis. The wife subsequently developed secondary symptoms, which responded to treatment.

Case 4. L. F., aged 24, unmarried, was examined January 1, 1921, for a fever blister upon his upper lip which had persisted for about three weeks and showed no signs of improvement. I found a hard, indurated sore on the lip, with the typical infiltrative oedema of the surrounding mucous membrane. The submaxillary glands were quite enlarged. Several dark-field examinations did not show any spirochaetes. The Wassermann was negative. Because of the clinical characteristics of the sore, specific treatment was instituted, and the lesion showed decided improvement, disappearing entirely after two injections of salvarsan and two mercury injections. Another Wassermann was done after the second week, and was reported positive. The patient stuck to his treatments regularly, did not develop secondaries, and was finally discharged with a negative Wassermann. He is still under observation, reporting at the office at regular intervals, and feels clinically well.

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1021 Candler Building.

## LOCAL ANESTHESIA.\*

W. M. Folks, M. D.,  
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The use of local anesthetics will never displace general anesthesia, as there are times when it is necessary to have complete narcosis in operations requiring extensive dissection and incision of delicate structures. In these cases it is very desirable to have the patient completely anesthetized if the operator is to have full freedom in time and extent of operation. There is a definite time limit to complete analgesia from a local anesthetic, while general narcosis may be prolonged more or less indefinitely.

A few years ago operations attempted under local anesthesia were very limited; today it includes a large group, some of which are quite formidable. Some of us appeared to be rather bold in the first attempt to perform some of these operations without a general anesthetic, but the results have proved the procedure to be fully justifiable.

When using local anesthetics the patient experiences two periods of extreme anxiety. These are very important moments to the operator and should receive his best consideration.

First, the initial tiny prick of the needle when anesthetizing the superficial tissue, from which point a more extensive field can be anesthetized with little or no pain to the patient. The confidence of the patient is either gained or lost at this time, according to the technique employed. The importance of maintaining this confidence must never be

\* Read before the Eleventh District Medical Society, Brunswick, Ga., June 23rd, 1921.



overlooked. A little study in psychology and the power of suggestion will materially assist in establishing the proper faith between the operator and the patient.

The second period arrives when the first incision is made: The operator should be certain that the superficial tissues are thoroughly anesthetized; the incision should be made gently and with as little traction as possible upon the superficial tissues. Pre-operative administration of a narcotic will assist materially in carrying the patient over these anxious moments.

A choice of the anesthetic used is of no greater importance than the strength of the solution and amount used in any given operation. I have used apothesine in about one hundred and fifty cases, which include a variety of both major and minor operations. Careful observation has convinced me that a one-half to one per cent. solution is entirely satisfactory for the average operation.

In some of my earlier work a solution of apothesine and adrenalin was used. In a few of these cases some sloughing was noticed; the adrenalin was thought to be the cause of this trouble and was discarded. Since using the apothesine alone the anesthesia has been complete and no further trouble experienced so far as sloughing or necrosis was concerned. It is barely possible that there was too much adrenalin in the solution used; however, the results have been so notably satisfactory without the adrenalin that I have not felt warranted in attempting to make any further use of it.

There is some slight variation in the length of time necessary for producing complete anesthesia; this will depend somewhat upon the character of the tissue into which the injection is made. A matter of a few seconds is of little or no importance when waiting for the full effect of the drug. It is a mistake to become impatient and repeat unnecessary injections, throwing an excessive quantity of solution into the tissues when a lesser amount would answer the same purpose, if a little longer time is allowed for the initial quantity employed. An excess of so-

lution not only causes an extra tension on the tissues, which might result in pressure necrosis, but it also subjects the patient to the necessity of eliminating an unnecessary quantity of the drug that undoubtedly causes more or less disturbance to the organs that have to do with the process of elimination. The proposition resolves itself into one of permitting the necessary time for the drug to exert its full anesthetic effect and to use no more of the solution than is necessary to produce the anesthesia desired.

The following brief reference to some of my cases will illustrate the fact that this form of anesthesia is thoroughly applicable in a class of operations that include a wide range of general surgery:

**Case 1.** J. J. W. Age 75. Male. Chronic Bright's disease. Diagnosis: Strangulated inguinal hernia. Apothesine solution, one-half per cent. Complete anesthesia in about five minutes and continued throughout the operation, which lasted one and one-half hours. Uneventful recovery.

**Case 2.** L. M. Age 13. Male. Appendiceal abscess. Apothesine solution, one-half per cent. Complete anesthesia, which lasted throughout an operation of one hour and forty-five minutes. Uneventful recovery.

**Case 3.** C. P. Age 19. Male. Patient with lobar pneumonia, developed gangrenous appendix. Apothesine solution, one per cent. Complete anesthesia for operation lasting thirty minutes.

**Case 4.** Mrs. M. D. Age 33. Chronic appendicitis. Apothesine solution, one-half per cent. Complete anesthesia for forty-five minutes. Recovery complete and uneventful.

**Case 5.** Mrs. M. C. Age 82. Strangulated inguinal hernia. Apothesine solution, one-half per cent. Complete anesthesia for an operation of one hour. Anesthesia was complete and the operation successful but the patient failed to recover from the shock of the operation and died in seven days.

**Case 6.** Mrs. C. Age 73. Stone in common duct below bifurcation. One per cent. solution of apothesine; complete anesthesia. Op-



eration lasted for one hour and twenty minutes.

**Case 7.** Mr. W. Age 74. Herniotomy. Apothesine solution, one per cent. Complete anesthesia during operation of one hour and twenty minutes.

**Case 8.** Miss A. Age 40. Femoral hernia. Apothesine, one per cent. Complete anesthesia throughout operation of one hour and ten minutes.

**Case 9.** Mr. W. Age 10. Appendectomy. Apothesine, one per cent. Complete anesthesia for operation of one hour.

**Case 10.** Baby. Age 2. Circumcision. Apothesine solution, one per cent. Operation, ten minutes.

**Case 11.** Mr. D. Age 16. Appendectomy. Apothesine solution, one per cent. Complete anesthesia for operation of forty-five minutes.

This group of cases represents a class of operations that can be successfully performed by using a comparatively small amount of anesthetic solution. In doing appendectomies it is necessary to anesthetize the meso-appendix to avoid any cramping pains. For herniotomies the superficial skin is thoroughly anesthetized and then deeper injections are made into the fascia until the entire breadth and depth of the operation has been fully covered. These cases heal by primary union and the patient is relieved of postoperative nausea, which is very objectionable in these cases.

### REGIONAL ANAESTHESIA IN POOR SURGICAL RISKS.

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In choosing the above title, I leave out of consideration the surgical cases that would probably take any kind of anaesthetic with reasonable safety, and limit my remarks to those cases that need surgical aid and yet have some physical infirmity on account of which a general anaesthetic might add to the hazard of the operation.

In speaking of regional anaesthesia I shall

use the term in a broad sense so as to include not only nerve blocking but also infiltration and spinal methods.

Of the relatively safe local anaesthetics my experience is limited to novocaine and apothesine injected into the nerves or tissues, and stovaine as recommended by Babcock in the spinal canal. Locally, I prefer novocaine and find that 0.5% meets all requirements for perfect analgesia. It has the advantages of remaining stable after sterilization by boiling, and combines in a most satisfactory way with adrenalin chloride. This property has the two-fold virtue of causing the solution to be absorbed more slowly, thus lessening its toxicity, and of producing the local anaesthesia for more than an hour (ample time for most operations). Fortunately, I have never encountered a patient who had an idiosyncrasy to novocaine. That there are such patients seems to be true as one such case was reported at the meeting of the American Medical Association at New Orleans. However, no anaesthetic is without some element of danger, so it is for the surgeon to decide.

Why not stick to ether? It has served many surgeons well and long. This is true, but it is also true that there are many conditions where an ether anaesthesia would add greatly to the burden already carried by the patient. It has been shown by leading surgeons the world over that such additional shock and irritation may be avoided by some form of regional anaesthesia.

Allow me to quote from an editorial in the American Journal of Surgery of May 10th concerning the report of a committee from the American Medical Association appointed a year previously to report on the Advantages and Disadvantages of the various local anaesthetics in operation on the nose and throat. The conclusions were as follows:

"1. Careful investigation failed to show that adrenalin was a causal factor in any fatality.

"2. Of the thousands of cases in the literature—one case of iniosyncrasy was reported.

"3. Morphine and atropine were not con-

tra indicated as adjuncts to local anaesthesia.

"4. In America, local anaesthesia is the method of choice in nose and throat operations by a majority of surgeons, and that experience in war had much to do with the conversion of those opposed to local anaesthesia.

"5. Neither the toxic effects nor the occasional fatalities from its use are more dangerous or more numerous than the corresponding hazards of general narcosis."

Read the reports of the neurological surgeons of the recent war and no phase of it stands out more prominently than the development of local anaesthesia.

In thyroid operations whether for ligations, in toxic cases, or thyroidectomy the mortality has been markedly reduced in many large clinics.

In abdominal, pelvic and rectal operations, some surgeons use local or spinal anaesthesia as a routine, and give us statistics that compare favorably with ether anaesthesia. Others employ these types of anaesthesia only in cases that they consider poor risks for ether anaesthesia, and naturally have some fatalities.

To quote from James Rallston Wells.\*

"Spinal analgesia may be condemned as dangerous, and it is not without danger, but in any case where a general anaesthesia is contraindicated the use of any anaesthetic is a risk, as for instance in advanced peritonitis, a strangulated hernia, in advanced cardiac or renal disease in which many surgeons will advocate spinal analgesia—Why? Because they think there is less danger of death, immediate or post-operative."

In my work I have used local anaesthesia in thoracotomies, in operations for hernia, varicocele and hydrocele as a routine for several years. In toxic thyroid cases my experience has been limited though favorable. In a series of gall bladder cases, most of which were associated with stones, the pa-

tients representing varying degrees of jaundice, I have found that local anaesthesia alone, or in conjunction with nitrous-oxide and oxygen if adhesions are numerous or the stones impacted, met all requirements.

I must admit that I have been skeptical about spinal anaesthesia although I have used it during the past year in about fifteen cases which were complicated by some cardiac, renal, diabetic or tubercular condition. In these cases I have had the co-operation and assistance of Dr. G. P. Huguley, who familiarized himself with the technic while working with Colonel Babcock at Fort McPherson.

In one case, a diabetic with gangrene of foot, we failed to get any degree of analgesia. In another case with tuberculous fustulae-in-ano we obtained analgesia only after waiting forty-five minutes. In a third in which a resection of the cervix for recurrent carcinoma following a supravaginal hysterectomy was done, analgesia was perfect for an hour. Sensation returned rather suddenly before we had closed all raw surfaces. The patient began to complain of pain on the slightest manipulation so that it was necessary to administer nitrous-oxide-oxygen in order to effect the closure. In the other cases analgesia was so perfect that I am convinced that this method is not infrequently safer than ether.

It is presupposed that the patient is in a receptive mood; if not, morphine and scopolamine, either alone or in combination should be administered.

In conclusion I wish to say that as a routine I consider ether a safe and satisfactory anaesthetic. In cases, however, where it might add to the shock, overburden an overloaded heart, irritate impaired air passages, light up a slumbering tuberculous or pellagrous process, or add to degenerative changes in crippled kidneys, the thoughtful surgeon should weigh all the value of regional anaesthesia.

79 Forrest Ave.

\* Wells: *Annals of Surgery*, April, 1920.

## A CASE OF ASTHMA CAUSED BY SENSITIVENESS TO DOG HAIR.

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M. C. W., a white male, aged 41 years, a dentist, came on Sept. 7th, 1921, complaining of Bronchial Asthma—duration of twenty-two years. The asthma began after an attack of coryza in the month of January and lasted two weeks. The patient was nineteen years of age at that time and had been married only three months. For several years attacks occurred in the Spring and Fall only, always with a coryza, and lasted seven to fourteen days. These gradually increased in severity and frequency till wheezing was present practically the entire year and the acute attacks occurred during all seasons. For the last three months patient has had to take ten to fifteen drops of adrenalin by hypodermic from two to five times every day. The more severe attacks have come at nine p. m. and at two a. m.

An analysis of his history brings out the following points:

Attacks are increased by: Night, hot weather, Spring and Fall, dampness, dust, constipation, and coryza.

Attacks are decreased or lessened by: The absence of the above and by adrenalin.

Attacks are accompanied by: Coryza and a condition, not so severe as, but, simulating Hay Fever.

Season: Worse in Spring or Fall but occurs at all times of the year.

Time of day: Worse at night.

Location: Has occurred in different localities, both in country and in the city.

House: Patient has resided in four different houses with no effect on his disease.

Pollens and Plants: No effect noticed.

Animals: No close association. Has a yard dog.

Fowls: Has chickens in yard and sleeps on a feather pillow.

Birds, rabbits, and pets: None.

Endocrine system: Nothing suggestive

of an endocrine disorder elicited, except that the first attack occurred three months after marriage.

**PAST HISTORY:** Denies all illnesses. Questions on the individual organs brings out that he has an uncorrected refractive error, that one tooth was removed two weeks ago for abscessed tooth-root, that his appendix was removed seven years ago, that he had gonorrhoea fifteen years ago, and that he has suffered many years with atonic constipation.

**FAMILY HISTORY:** One sister has had asthma since the age of twenty. Another sister has a son who has had asthma since the age of two. Otherwise the family history is negative.

**POSITIVE PHYSICAL FINDINGS:** A refractive error, markedly retracted ear drums, sinuses illuminated well, nasal septum widely deviated to the left, right middle turbinate greatly hypertrophied, hypertrophied cryptic tonsils with exudate in the crypts, a moderately advanced pyorrhoea affecting all the gums, five sensitive teeth, a slightly increased antero-posterior diameter of the chest, good expansion of both apices and bases, typical signs of asthma over lungs, slight tenderness over caecum and sigmoid, absence of strictures in the urethra, a normal sized prostate, and normal reflexes.

**X-RAY FINDINGS:** Three abscessed tooth roots.

**LABORATORY FINDINGS:** 1. Negative Wassermann. 2. Stool negative for ova and parasites. 3. Complete blood count gives cells and hemoglobin well within normal limits and proportions. 4. Sputum was composed mostly of mucus with a small percentage of pus containing many different organisms, no special one predominating. 5. A twenty-four hour specimen of urine totalled 360 c.c., was of a specific gravity of 1.030, of a total acidity of 156 degrees, and contained a large amount of indican.

**PROTEID SENSITIZATION TESTS:** Cutaneous tests were made with protein extracts from all the different foods the patient ate throughout the entire year and all were negative.

The extract from dog hair gave a strongly positive reaction. Further questioning of



the patient brought out the fact that the attacks of asthma occurring in the Spring and Fall had usually been after hunting trips and that his dog now slept on the steps of his sleeping porch just by the patient's bed. The dog was sent away and attacks ceased at once. To give this diagnosis a rational test, a lapse of two weeks was allowed. During this time the patient had to take adrenalin only once as compared with the four times a day before the dog was removed. At the end of two weeks, a neighbor's dog was borrowed and the patient played with it for five minutes. Fifteen minutes later a severe attack of asthma began.

**TREATMENT:** 1. Removal of all association with dogs and desensitization to dog hair. 2. Treatment of the teeth and gums by a competent dentist. 3. Correction of the eye, ear, nose, and throat conditions by a specialist on this subject. 4. The constipation was treated by habit, exercise, diet, and cascara. 5. The amount of fluids was greatly increased and either fruit juice or sodium citrate given several times a day.

**DISCUSSION:** It is extremely unfortunate for this particular patient that his attacks ceased so suddenly with the removal of the dog. Because of this, he may not recognize the necessity of correcting all the pathological conditions found. Despite the twenty-two years of asthma, his chest walls are not fixed and his lungs evidence a good expansion. Taking this fact into consideration and having found an exact cause for his asthma, we may say that the prognosis for complete recovery is good; but, to assure this, complete desensitization must be carried out, all foci of infection removed, and all irritating mechanical defects corrected. If he is only desensitized, the asthma will very probably cease, but chronic bronchitis may follow. If the patient will persist in the treatment till all untoward conditions are relieved, recovery will, no doubt, be both complete and permanent.

35 Doctors' Building.

## THE SLANDERER.

The very name invokes loathing. Though more or less in human form, this degenerate remnant of the silurian age is the most contemptible of creatures. The scandalmonger is disliked, the liar is despised, but the slanderer is loathed. Using falsehoods or facts that are distorted as some would juggle statistics, the slanderer spreads a most subtle poison, that blasts lives and reputations. Slander can not be controlled any more than you can stop a lie, once it has gained credence. Compared with the social diseases, it is the greatest evil of our age. The slanderer is more dangerous and despicable than those misguided enemies of society who use bombs and poison secretly.

Whenever you discover a slanderer posing as an honorable member of our profession, let your conscience be your guide but be sure you do your full duty.

—MALSBARY, Editorial in the Southern California Practitioner.

## BOOK REVIEW.

**Principles of Medical Treatment.** By George Cheever Shattuck, M. D., A. M., assistant professor of tropical medicine, Harvard medical school; formerly assistant visiting physician, Massachusetts general hospital. Fifth revised edition. 1921. Boston: W. M. Leonard, Inc.

The fifth revised edition of this book is several times larger than the first edition; and the practical value is even more evident. This edition contains special articles by several men, in addition to those by Dr. Shattuck. It has long been recognized as a fundamental work, in that it considers the principles of medical treatment, which treatment is based on known pathology. It is well worth reading once each month.

M. F. MORRIS.

**THE JOURNAL**

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT**

The next meeting of the Association will be held in Columbus, May 3-5, 1922. Members desiring to read papers should forward titles to the Secretary as soon as possible.

**GEORGIA TUBERCULOSIS ASSOCIATION.**

All of the doctors in the state probably do not know that the Georgia Tuberculosis Association exists. This organization bears the same relation to the National Tuberculosis Association that the Medical Association of Georgia does to the American Medical. Its power for doing good is unlimited and it needs the help and cooperation of every citizen in Georgia. It is not organized solely to study tuberculosis problems but to solve and correct them.

This organization has taken over the work started eight years ago under the auspices of the Raoul Foundation. Capt. Raoul in his will left \$50,000 as a nucleus for crusade work in Georgia. This fund is in the hands of a Board of Trustees and the Association receives the accrued interest from year to year for carrying on its work. The Trustees of the Raoul Foundation, after making a survey of the tuberculosis situation in Georgia, organized a machinery which has been most efficient, and an enormous amount of work has been done. This machinery consists of a managing director, Mr. Jas. P. Faulkner, two field workers, Miss Busha who has charge of the crusade work and Miss Jackson who is in charge of organization of district nursing, tuberculosis camps and clinics. These women go into the field, handle the problem through Parent-Teacher Associations, Women's Clubs, School Boards, Superintendents of respective schools, Health Officers, County Commissioners, Municipal Officers, etc. The supplementary funds of this foundation have been Christmas Seal Sales and individual and corporation donations. These funds ordinarily aggregated about \$15,000 and no money in Georgia has accomplished so much good. All this work now is being handled by the Georgia Tuberculosis Association.

At a meeting composed of agencies and individuals interested in tuberculosis work on October 7th, 1921, the Georgia Tuberculosis Association was organized. Officers elected were Dr. E. C. Thrash, President; Mrs. M. E. Judd, First Vice-President; Mrs. R. W. Hatcher, Second Vice-President; Miss Jeanette McDonald, Secretary, and Mr. T. K. Glenn, Treasurer. The working staff consists of Mr. Jas. P. Faulkner, Managing Director; Miss Chloe M. Jackson, Executive Nurse; Miss Ruby Busha, Health and Crusade Officer; Mrs. M. F. Camp, Office Secretary. The working staff are full time officials. The government of this Association and the expenditure of its funds are in the hands



of a Board of Trustees of which the President, Secretary and Managing Director are ex-officio members.

The chief aims of the Association are to increase field workers, organize clinics in every part of the State, help and co-operate in getting sanitariums in as many important cities as possible, to bring forth all influences possible to increase the facilities on the part of the state for handling tuberculosis and to educate the public in the prevention and control of the disease.

The cost of membership is \$1.00 and every cent is spent in helpful tuberculosis work and will be expended by seasoned men of many years' experience in the fight on tuberculosis. Every doctor in Georgia should not only be a member but should give the Association his most hearty co-operation. It is the duty of every citizen in the State to subscribe at least \$1.00 to this fund. Its task is so stupendous that it needs the help of every man, woman and child.

The estimate of economic loss alone for Georgia based upon statistics procured from the National Association is \$23,000,000.

Let us start a crusade with all our might and main to reduce this loss in money and human lives.

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#### **GORGAS MEMORIAL INSTITUTE OF TROPICAL AND PREVENTIVE MED- ICINE TO BE ESTABLISHED IN PANAMA.**

Of particularly deep interest to all members of the medical profession and to all others interested in questions of public health and sanitation is the recent announcement of the plans of the Board of Directors of the Gorgas Memorial for the establishment of a Memorial Institution in the City of Panama for research and the extension of means of prevention of tropical diseases.

Anyone who has seen the old Panama at the time of the abandonment by the French of the work of the first canal, in-

volving so much wasted energy, the loss of thousands of lives and some hundreds of millions of dollars, could not but be struck with the present aspect of Panama, its splendid sanitation, its beautiful cities, its five hospitals, and above all, by the completion of the Panama Canal itself, making Panama one of the most beautiful and salubrious spots in the world.

It is well known to members of the medical profession that the accomplishment of this great work and the sanitary regeneration of Panama are due to the efforts of the late William C. Gorgas, Surgeon General of the United States Army, and to his efforts, more than to any other, success for the work must be accredited.

Coupled with his earlier work in Cuba, the accomplishment of General Gorgas in conquering Yellow Fever and Malaria and conclusively demonstrating the fact that health, even in the tropics, is a purchasable commodity has sent forth his fame throughout the world. Perhaps no single life has done more for the good and well being of humanity, and his great attachment for Panama has made the proposed Memorial to carry on the work he so ably started, the most practical tribute which could be conceived to his memory.

The honor for the conception of this idea and of bringing it into actual existence belongs to Dr. Belisario Porras, the President of the Republic of Panama, who in the name of his government has tendered the site, a building, and all required equipment, valued in all at approximately \$500,000. At the request of Dr. Porras, Admiral Braisted, formerly Surgeon General of the United States Navy, with the co-operation of others equally interested in making this Memorial possible, incorporated the Gorgas Memorial Institute for the purpose in addition to directing the scientific work, of raising an endowment fund of five million dollars for maintenance.

Dr. Richard P. Strong of Harvard University, chosen to head the Scientific Board, will be assisted by Admiral E. R.



Stitt and Lieutenant Colonel J. F. Siler. Other members of the Scientific Board will be announced at an early date.

In commenting upon the field of work before the Institute, Admiral Braisted stated that among the diseases which will be studied in addition to Yellow fever and Malaria, are dengue, pellagra, beriberi, leprosy, cholera, and the various mycoses. It is the consensus of opinion that tremendous advances can and will be made through the efforts of the research work in this field.

The humanitarian benefits to accrue from the establishment of this wonderful tribute to General Gorgas are almost beyond conception. Its complete success means the fulfillment of General Gorgas' greatest desire, that of eliminating these devastating tropical diseases, and at the same time is a fitting recognition of the worldwide importance that the Profession of Medicine played in the construction of the Panama Canal.

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**ANNUAL BANQUET OF FULTON  
COUNTY MEDICAL SOCIETY HELD  
AT CAPITAL CITY CLUB,  
JAN. 5, 1922.**

The meeting was called to order by Dr. Frank Boland, retiring president, who asked the society to stand and drink a silent toast to Dr. Hansell Crenshaw, Dr. Ed Jones, and Dr. Floyd McRae, Sr., who have died during the past year.

Following this, the president-elect, Dr. Rufus Dorsey, was installed. Dr. Dorsey's address was full of interesting recommendations which will be brought before the society and board of trustees. Following his address he made an appeal for subscriptions on our medical home and library and over seven thousand dollars (\$7,000) was subscribed.

The following committees were appointed for 1922:

**Public Policy and Legislation.**

G. W. Quillian, chairman; W. C. Lyle, C. E. Waits.

**Publicity.**

T. C. Davison, chairman; J. J. Clark, B. H. Wagnon.

**Public Health.**

C. W. Roberts, chairman; M. F. Morris, S. Stampa.

The Society had the great pleasure of having as its invited guest, Dr. James S. McLester, Birmingham, Alabama, who gave a most interesting and instructive paper on "Clinical Estimation of Renal Efficiency."

The following members who have been active members of the Society for twenty-five (25) years were presented with certificates of distinction by Dr. Garnett Quillian: Drs. C. E. Murphy, W. P. Nicolson, G. H. Noble, Dunbar Roy, L. P. Stephens, J. E. Sommerfield, A. W. Stirling, W. F. Westmoreland, J. P. Kennedy, W. E. Campbell, J. L. Campbell, M. G. Campbell, Arch Avary, J. C. Avary, W. T. Brown, W. L. Champion, L. B. Clarke, W. A. Crowe, E. C. Davis, J. G. Earnest, W. S. Elkin, C. G. Giddings, W. S. Goldsmith, T. H. Hancock, M. B. Hutchins, J. C. Johnson, J. B. Baird, and B. E. Pearce. Dr. Quillian delivered an eulogy on the character and ability of these men with a brief outline of the history of this Society and few men have had a more beautiful tribute paid them than was given by Dr. Quillian.

This meeting was one of the best the Society has enjoyed. An orchestra furnished music during the banquet and, following the program, a few vaudeville stunts were given. There being no further business, the meeting was adjourned.

GRADY E. CLAY, Secretary.

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**PROGRAM OF FULTON COUNTY MEDICAL SOCIETY FOR MONTH OF  
FEBRUARY.**

Out-of-town doctors are cordially invited to attend these meetings which are held at the Assembly Hall of the Chamber of Commerce at 8 P. M.

**February 2, 1922.****Paper.**

Rational Treatment of Nose and Throat Diseases—Dr. Dunbar Roy.

**Clinical Talk.**

Silver Salts—Dr. E. G. Ballenger.

**Report of Cases.**

Report of Case of Carcinoma of the Thyroid—Dr. C. E. Waits.

X-Ray Treatment of Bronchial Glands—Dr. J. J. Clark.

**February 16, 1922.****Paper.**

The Diagnosis and Treatment of Heart Failure—Dr. Joseph Pratt of Boston, Mass.

**Clinical Talk.**

Use of Cat Gut—Dr. Perrin Nicolson.

**Report of Cases.**

Presentation of Cases of Plastic Surgery—Dr. E. D. Highsmith.

Presentation of Interesting Gross Pathological Specimens—Drs. Goldsmith and Schochet.

GRADY E. CLAY, Secretary.

**Troup County Medical Society.**

Troup County Medical Society elected the following officers for 1922:

President, Dr. Wallace H. Clark, LaGrange, Ga.

Vice-President, Dr. R. S. O'Neal, LaGrange, Ga.

Secretary-Treasurer, Dr. Enoch Callaway, LaGrange, Ga.

Delegate, Dr. Henry R. Slack.

**Sycamore Hospital, Sycamore, Ga.**

Sycamore Hospital, Sycamore, Ga., was formally opened Tuesday night, January 17, 1922, 7:30 P. M. The following program was rendered:

**Program.**

1. Invocation—Rev. F. M. Blalock, Sycamore, Ga.

2. Welcome Address—Rev. F. J. Jordon, Sycamore, Ga.

3. Response—Dr. W. L. Story, Ashburn, Ga.

4. The Importance of Co-operation in the Medical Profession—Dr. J. H. Baxter, Ashburn, Ga.

Discussion led by Dr. W. J. Turner, Ashburn, Ga. Followed by Dr. J. W. Bradley, Ashburn, Ga.

5. The Relation of the Hospital to the Community—Dr. J. T. Moore, Sycamore, Ga.

Discussion led by Dr. J. H. Kelley, Sycamore, Ga., Route 3. Followed by Dr. D. P. Luke, Ashburn, Ga.

6. The Promotion of Public Health by the Ladies of Civic Clubs—Mrs. L. W. Green, Sycamore, Ga.

Discussion led by Mrs. W. L. Story, Ashburn, Ga.

7. The Experiences of the Country Doctor—Dr. G. R. Luke, Ashburn, Ga.

Discussion led by Dr. H. M. Belflower, Sycamore, Ga. Followed by Dr. W. J. Dixon, Rebecca, Ga.

8. The Effect of the Ellis Law on Future Generations—Dr. F. W. Rogers, Ashburn, Ga.

Discussion led by Dr. R. D. Rawlins, Rebecca, Ga.

9. Barbecue.

**Tri County Medical Society.**

Tri County Medical Society elected the following officers for 1922:

President, Dr. J. S. Beard, Edison, Ga.

Vice-President, Dr. C. R. Barksdale, Blakely, Ga.

Secretary-Treasurer, Dr. C. K. Sharp, Arlington, Ga.

Delegate, Dr. J. G. Standifer; Alternate, Dr. P. H. Fitzgerald.

Board of Censors, Drs. M. A. Shepherd, C. K. Sharp, B. K. Simmons.

**Telfair County Medical Society.**

Telfair County Medical Society reports the following officers elected for 1922:

President, Dr. W. H. Born, McRae, Ga.

Vice-President, Dr. Frank Mann, Lumber City, Ga.

Secretary-Treasurer, Dr. C. J. Maloy, Helena, Ga.

Delegate, Dr. M. D. Council; Alternate, Dr. I. M. Lucas.

Board of Censors, Drs. B. W. Yawn, Leroy Napier and M. D. Council.

#### Elbert County Medical Society.

Elbert County Medical Society reports the following officers elected for 1922:

President, Dr. O. B. Walker, Bowman, Ga.

Vice-President, Dr. D. V. Bailey, Elberton, Ga.

Secretary-Treasurer, Dr. B. B. Mattox, Elberton, Ga.

Delegate, Dr. W. J. Matthews; Alternate, Dr. B. B. Mattox.

Board of Censors, Drs. G. A. Ward, T. H. Gaines and A. S. Johnson.

#### Pike County Medical Society.

Pike County Medical Society reports the following officers elected for 1922:

President, Dr. J. C. Beauchamp, Williamson, Ga.

Vice-President, Dr. I. B. Howard, Williamson, Ga.

Secretary-Treasurer, Dr. M. M. Head, Zebulon, Ga.

Delegate, Dr. D. L. Head; Alternate, Dr. J. C. Bramblett.

Board of Censors, Drs. J. R. Grooves, J. C. Bramblett and R. A. Mallory.

#### Campbell County Medical Society.

Campbell County Medical Society reports following officers elected for 1922:

President, Dr. W. R. Camp, Fairburn, Ga.

Vice-President, Dr. A. D. Jones, Tyrone, Ga.

Secretary-Treasurer, Dr. T. J. Busey, Tyrone, Ga.

Campbell County Medical Society is to be congratulated on being one of the first counties to send in their 1922 report.

#### Banks County Medical Society

Banks County Medical Society reports following officers elected for 1922:

President, Dr. M. P. Deadwyler, Maysville, Ga.

Vice-President, Dr. G. A. Castellow, Homer, Ga.

Secretary-Treasurer, Dr. O. N. Harden, Homer, Ga.

Delegate, Dr. O. N. Harden.

#### Ben Hill County Medical Society.

Ben Hill County Medical Society reports following officers elected for 1922:

President, Dr. W. D. Dorminy, Fitzgerald, Ga.

Vice-President, Dr. L. E. Thornton, Fitzgerald, Ga.

Secretary-Treasurer, Dr. W. P. Coffee, Fitzgerald, Ga.

Delegate, Dr. E. A. Russell; Alternate, Dr. M. S. Cohen.

Board of Censors, Drs. D. B. Ware, Frank Ward and M. S. Cohen.

#### Cherokee County Medical Society.

Cherokee County Medical Society reports following officers elected for 1922:

President, Dr. R. M. Moore, Waleska, Ga.

Vice-President, Dr. T. J. VanSant, Woodstock, Ga.

Secretary-Treasurer, Dr. Geo. C. Brooke, Canton, Ga.

Delegate, Dr. N. J. Coker; Alternate, Dr. J. M. Bates.

#### Emanuel County Medical Society.

Emanuel County Medical Society reports following officers elected for 1922:

President, Dr. V. E. Franklin, Graymont, Ga.

Vice-President, Dr. A. C. Johnson, Garfield, Ga.

Secretary-Treasurer, Dr. L. I. Lanier, Wesley, Ga.

#### Stewart-Webster County Medical Society.

Stewart-Webster County Medical Society reports following officers elected for 1922:

President, Dr. J. F. Lunsford, Preston, Ga.



Vice-President, Dr. J. M. Kenyon, Richland, Ga.

Secretary-Treasurer, Dr. R. M. Lovvorn, Richland, Ga.

Delegate, Dr. M. Walton; Alternate, Dr. J. H. Foster.

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#### Screven County Medical Society.

Screven County Medical Society reports following officers elected for 1922:

President, Dr. S. V. Mims, Sylvania, Ga.

Secretary, Dr. Louis Hannah, Sylvania, Ga.

Treasurer, Dr. L. F. Lanier, Sylvania, Ga.

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#### Muscogee County Medical Society.

Muscogee County Medical Society reports following officers elected for 1922:

President, Dr. J. M. Anderson, Columbus, Ga.

Vice-President, Dr. C. A. Peacock, Columbus, Ga.

Secretary-Treasurer, Dr. W. P. Jordon, Columbus, Ga.

Delegate, Dr. J. A. Thrash; Alternate, Dr. E. L. Baker.

Board of Censors, Dr. N. A. Dykes.

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#### Hall County Medical Society.

Hall County Medical Society reports following officers elected for 1922:

President, Dr. J. K. Burns, Jr., Gainesville, Ga.

Vice-President, Dr. H. S. Titshaw, Gainesville, Ga.

Secretary-Treasurer, Dr. Pratt Cheek, Gainesville, Ga.

Delegate, Dr. J. R. Simpson.

Board of Censors, Drs. J. L. Meeks, J. R. Simpson and H. L. Rudolph.

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#### Randolph County Medical Society.

Randolph County Medical Society reports following officers elected for 1922:

President, Dr. J. C. Patterson, Cuthbert, Ga.

Vice-President, Dr. F. M. Martin, Shellman, Ga.

Secretary-Treasurer, Dr. G. Y. Moore, Cuthbert, Ga.

Delegate, Dr. F. M. Martin.

Board of Censors, Drs. F. D. Patterson, E. C. McCurdy and F. S. Rogers.

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#### Upson County Medical Society.

Upson County Medical Society reports following officers elected for 1922:

President, Dr. H. A. Barron, Thomaston, Ga.

Vice-President, Dr. E. W. Carter, Thomaston, Ga.

Secretary-Treasurer, Dr. R. L. Carter, Thomaston, Ga.

Delegate, Dr. A. H. Black; Alternate, Dr. J. M. McKenzie.

Board of Censors, Drs. C. A. Harris, A. H. Black and E. W. Carter.

The Upson County Society is one of the most active County Medical Societies in the State and reports 100% in membership.

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#### Haralson County Medical Society.

Haralson County Medical Society reports following officers elected for 1922:

President, Dr. E. L. Gilmore, Tallapoosa, Ga.

Vice-President, Dr. T. J. Johns, Tallapoosa, Ga.

Secretary-Treasurer, Dr. L. J. Johns, Tallapoosa, Ga.

Delegate, Dr. W. H. Malone; Alternate, Dr. T. J. Johns.

Board of Censors, Drs. L. J. Johns, B. F. Eaves and W. B. Brock.

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#### Gwinnett County Medical Society.

Gwinnett County Medical Society reports following officers elected for 1922:

President, Dr. N. J. Guthrie, Norcross, Ga.

Secretary-Treasurer, Dr. D. C. Kelley, Lawrenceville, Ga.

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#### Sumter County Medical Society.

Sumter County Medical Society reports following officers elected for 1922:

President, Dr. B. T. Wise, Plains, Ga.

Vice-President, Dr. F. L. Cato, Plains, Ga.

Secretary-Treasurer, Dr. J. C. Logan, Plains, Ga.

Delegate, Dr. Herschell A. Smith; Alternates, Dr. J. W. Chambliss.

### ATLANTA NEUROLOGICAL SOCIETY.

The regular meeting of the Atlanta Neurological Society was called to order on December 30, 1921, by the President, Dr. Gaines. The program consisted of a paper by Dr. Allen Bunce on "The Spinal Fluid in Diagnosis." An abstract follows:

The anatomy of the subarachnoid system is quite well understood while its pathology and physiology are more obscure. According to such authorities as Stewart and Hammarsten, Halliburton, et al., it is a clear fluid which fills the ventricles of the brain and the canal around the cord and is continuous with that in the subarachnoid space thru the foramen of Magendi. It is secreted by the cubical cells covering the choroid plexus. Its specific gravity is 1.007 — 1.008 and its protein is a mixture of globulin and proteose. Dextrose or some fermentable sugar occurs in the fluid. Other substances reported as occurring are probably variable and due to different pathological processes. Its alkalinity is considerably less than that of the blood, this being an argument in favor of the secretory theory.

The amount of spinal fluid varies from 60 — 150 c. c. and according to Weed the formation is rapid and circulation is active. The circulatory route is from the lateral ventricles thru the foramen of Monro to the third ventricle, thru the aqueduct of Sylvius to the fourth ventricle, then to cisternae by the foramina of Magendi and Luschka. From here fluid is distributed to the communicating spinal, cerebral, and cerebellar spaces as a capillary layer except where the enclosing membranes are separated by wider intervals as at the cisternae. Absorption occurs chiefly by the

great venous sinuses thru the pachionian bodies and to a lesser extent into the lymphatic system. Drainage is chiefly a physical process due to difference of pressure in the subarachnoid system and venous sinuses. The total fluid secreted in 24 hours (Frazier) is from 360 — 750 c. c. and is replaced every three hours. Sixty per cent of phthalein injected into ventricles is recovered from the urine in two hours.

Origin of the cellular elements is uncertain, being either from the blood or connective tissue of leptomeninges. Pleocytosis is always associated with inflammation of the leptomeninges. With Alzheimer technique we find large and small lymphocytes, polymorpho-nuclear leucocytes, endothelial, and plasma cells. There is no characteristic cell picture.

Pressure varies from 90 — 130 mm. and is of some diagnostic significance as in brain tumor.

According to Becht the secretory theory must be abandoned, claiming that hydrocephalus may result from activity of the choroid plexus, stimulation of the ependyma cells of the ventricles, or increased transudation from capillaries, or from the formation of intracranial lymph. The formation of fluid may be normal while absorption is abnormal. He points out the dependence of formation on arterial and venous pressure and all changes ascribed to secretion can be traced to these circulatory changes.

According to Dercum, using these same arguments in support of spinal drainage in treatment of neuro-syphilis, the function of the spinal fluid is essentially hydrostatic and for hydraulic suspension of the brain and chord with no special nutritive function.

Stokes and Osborn, quoting from Becht, differ from Dercum and also cite the work of Mehrtens and MacArthur who found that arsenic was found in the spinal fluid after intravenous injections in only 43% of cases, but in 92% if intravenous injection was given 6 hours after irritation of

the meninges by intraspinal injection of serum. Hence the whole question of formation and function of the spinal fluid is inconclusive.

Examination of the spinal fluid may be considered under the following headings: cell count, globulin estimation, reduction tests, Wassermann, colloidal gold, other chemical tests and bacterial examination.

A cell count above 7-10 should be considered pathological. Examination should be made immediately as cells disappear rapidly. However 3 drops of acetic acid to 5 c. c. of fluid will preserve the leucocytes for months. The number of cells varies greatly in different pathological conditions.

Numerous tests for globulin have been devised; all of them about equally good. Increased globulin is not pathognomonic of any given disease but due to any inflammatory process in the meninges or parenchyma.

Normal spinal fluid reduces copper sulphate; this power disappearing in many pathological fluids. Dopfer finds an increase in sugar is frequently present in encephalitis and advocates this to differentiate from syphilitic or tuberculous meningitis.

Opinions differ as to the value of a positive Wassermann in the spinal fluid. Scott and Pearson claim that if the blood is positive the spinal fluid may be positive without actual infection of the nervous system due to passage of reagin over into the spinal fluid from the blood. Several experiments are given to prove this. On the other hand, Solomons, reviewing a large number of cases, believes a positive Wassermann is pathognomonic of syphilis.

The colloidal gold test, according to a consensus of opinion, is of a confirmatory value only, and other evidence must be present for final diagnosis. The colloidal mastic reaction gives more definite color changes but is of no greater value.

Other chemical tests have been devised but none shed any additional light or are pathognomonic.

Xanthochromia of the spinal fluid deserves special mention. The syndrome of Froin consists of a yellow spinal fluid, coagulation en masse, and an abundance of lymphocytes. This suggests an isolation of one portion of the subarachnoid space. Levison considers it of little diagnostic value because of the great variety of diseases producing it.

The temperature of the spinal fluid is .1 degree below axillary temp. and .5 degree below rectal.

Conclusions: Since the introduction of lumbar puncture by Quinke many different tests have been devised for examining the spinal fluid. While we should realize fully the aid to be derived from an examination of this fluid we must recognize that outside of the demonstration of bacteria for specific disease we have no single test which is pathognomonic. The Wassermann approaches this most closely. The other tests in the order of their reliability are the cell count, the globulin estimation, the colloidal gold test, the reduction tests and a number of miscellaneous tests of doubtful value.

#### DISCUSSION.

Dr. S. R. Roberts—I consider the best part of Dr. Bunce's paper to be the conclusions: that there is no single test pathognomonic of any disease affecting the central nervous system. Some years ago we read Quinke's original article on the lumbar puncture. The lumbar puncture is our only method in life of studying the pathology of the cerebro-spinal system. When in doubt about the central nervous system do a lumbar puncture. The things to consider are: the color, whether clear, cloudy, purulent, yellow, or blood-streaked and if blood-streaked was a spinal vein punctured or was there a hemorrhage into the spinal chord or brain as in basal fracture or following hemiplegia; next, the Wassermann; then the bacterial content if any and what bacteria; the colloidal gold reaction; reduction tests; and globulin content. The last is of little value. The cell count, Wassermann, and bacterial content are the most important clinically. This paper is also a warning of how little we know; how many tests there are; and how many are practically valueless. I remember especially a colored woman at the Grady whose blood Wassermann was negative and spinal fluid positive. This frequently happens. Another point to consider is the amount of



spinal fluid. Cases of cerebro-spinal meningitis may be cured clinically and may redevelop symptoms due to overformation of spinal fluid. I remember a case which I had pronounced well and 24 hours after a typical meningitis state developed. I finally decided there must be oversecretion and drained completely. Recovery was immediate. I think the differential diagnosis of cerebro-spinal infections (acute) have never been as difficult as today. The advent of encephalitis has increased the difficulty. Recently we had a case of paraldehyde poisoning with all the symptoms of encephalitis. It ended with an apparent meningitis. So we must study the patients clinically as well as their spinal fluid.

**Dr. Albert Brawner**—I have enjoyed the paper very much. I have nothing to add to the discussion.

**Dr. Jas. N. Brawner**—In examinations of the spinal fluid the Wassermann, globulin, bacteria, and cell count are the most important. I disagree with Dr. Roberts as to the value of the globulin content. My experience has been that an increase of globulin shows organic changes in the nervous system somewhere. I am of the opinion that there are two sources of the globulin: inflammatory conditions of the meninges or parenchyma and degenerative changes in the parenchyma of the spinal cord or brain. Up to a few years ago when we found the globulin considerably increased and pleocytosis in the spinal fluid and the case was not tuberculosis or meningitis, we practically always found a positive Wassermann. Later we ran across cases with the same picture but a negative Wassermann. Nearly all of these got well. Some were hypomaniac. In one case with a hypomaniac state lumbar puncture showed a two plus globulin, 12 cells per cmm. and a negative Wassermann. We thought it paresis. He became well and is today. What he really had was a mild inflammatory condition of the meninges or parenchyma. These cases did not occur until about three years ago.

**Dr. Gardner**—I am placed where a definite differential diagnosis means the retention or loss of compensation. I am particularly interested in the colloidal gold test. In the presence of increased cells and globulin with a negative Wassermann, if the colloidal gold curve is positive, has a man syphilis? When we have clinical manifestations of syphilis or paresis with an absence of a luetic curve should we diagnose syphilis?

**Dr. Young**—I have seen many cases recently with a negative blood and a positive spinal fluid Wassermann and also some in which the Wassermann is negative thruout. These have impressed me with the necessity for closer clinical study and the folly of too great a reliance on the laboratory. I feel that this is the strongest point in this most instructive paper which Dr. Bunce

has read. We have had very striking results in neuro-syphilis with intravenous salvarsan 6 hours after intraspinal injections of mercurialized serum.

**Dr. Gaines**—A spinal fluid examination should be almost routine. In meningitis we sometimes find a clear fluid without organisms and with all the clinical symptoms. In these cases we should puncture the cisternae and if negative the ventricles. In relapses where the lumbar puncture shows only a small amount of fluid, puncture of the ventricles will often reveal purulent fluid. We have run across three cases of yellow spinal fluid. The first case had rather puzzling symptoms and on lumbar puncture only a small amount of yellow fluid came out. Operation revealed a cyst of the spinal chord and the fluid was cystic. The second case had all the earmarks of encephalitis with complete aphasia. Dr. Aven mentioned the third case to me. I made the remark, "Look out for a cyst or tumor of the chord," and at operation a tumor was found. Dercum, after complete drainage, found that the spinal fluid flowed at the rate of about one drop per minute and concludes that this is about the rate of formation of the fluid. Another point I wish to bring out is concerning spinal drainage in epilepsy. I have several cases which I drain every few months. The attacks seem to lessen without its doing anything else. These cases may be due to gradual increase in fluid. At any rate they return for more. I feel we should be very careful about putting foreign substances into the spinal canal.

**Dr. Bunce (closing)**—In reviewing the literature we ran across cases of multiple sclerosis which gave a luetic curve with colloidal gold and which were benefitted by arsphenamine. In optic tabes the colloidal gold reaction gives a paretic curve. As to the importance of the various tests: Solomons regards the Wassermann as the most important; Scott and Pearson increased cell count; with the Wassermann next, and globulin last; and Stokes an increased cell count; while Sanford thinks the colloidal gold the least important of all. Certainly I shall not consider a paretic or luetic gold curve diagnostic in the absence of other evidence. Fisher really originated spinal drainage, April, 1915. Dr. Block and I did some work on the temperature of the spinal fluid and were surprised to find it so low.

W. W. YOUNG, Sec'y.

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## THE ST. LOUIS MEETING OF THE AMERICAN MEDICAL ASSO- CIATION, MAY 22-26, 1922.

The May meeting of the American Medical Association at St. Louis promises well toward being the largest in attendance of

any of the Association's sessions. Since the publication of the hotels in the Journal of the Association in December, inquiries and reservations are being made daily. The hotels and the Conventions Bureau are aiding the Committee in a most satisfactory and helpful way to see that the Fellows are comfortably housed and accommodated. The A. M. A. meetings tax all cities entertaining them to the limit of hotel capacity. Whenever possible a good Fellow should double up so that no one is left without comfortable lodging.

Reservations should be made by communicating direct with the hotels. If satisfactory arrangements cannot be made in this way, write to Doctor Louis H. Behrens, Chairman Committee on Hotels, 3525 Pine Street, St. Louis, Mo.

A complete list of hotels together with their rates appears elsewhere in this issue.

### RESOLUTION.

Whereas, God in His providence has seen fit to abruptly remove Dr. H. W. Terrell from his sphere of further activities, and

Whereas, Dr. Terrell, as a member of the Georgia State Board of Medical Examiners, was an inspiration and an example of faithfulness, and

Whereas, His multitude of friends and patients will feel a void unsatiable, and

Whereas, He was a devoted husband and father, therefore,

Be It Resolved, By the Georgia State Board of Medical Examiners, by its members assembled, That the Board has lost an honored, beloved and revered member;

Resolved, Further, That the deepest sympathy and condolence of the Board be extended to his broken family and the thought that God in His wise and just way has more need of him than those of us left to sorrow;

Resolved, Further, That a copy of this resolution be spread upon the minutes of the Board, a copy sent to the Journal of Medical Association of Georgia, copies to

the papers, and a special copy be furnished to Dr. Terrell's family.

O. B. WALKER, M. D.,

W. C. WILLIAMS, JR., M. D.,

H. F. McDUFFIE, M. D.,

Committee.

### THE NEWER MEDICINAL CHEMICALS.

On Friday evening, January 6th, Dr. Alfred S. Burdick, president of the Abbott Laboratories, Chicago, delivered an address before the Chicago branch of the American Pharmaceutical Association, on the "Newer Medicinal Chemicals." The rapid growth of American chemistry through co-operation of all research agencies in this country, was emphasized by the speaker.

Concrete examples of American achievements in synthetic chemistry were recited, and a plea made for the support of the medical and pharmaceutical professions to preclude the possibility of our again becoming dependent upon foreign sources for chemical supplies. The history of Arsphenamine, Barbitol, Cinchophen, Neocinchophen, Chlorazene, Procaine, the Benzyl Esters and other synthetic medicinal chemicals was outlined. Announcement was also made of a number of new chemical bodies recently developed, and others on which research work was now being done by the Rockefeller Foundation, various universities, the American Medical Association and the Abbott Laboratories.

In conclusion, Dr. Burdick urged both physicians and pharmacists to prescribe and dispense medicinal chemicals by the newer American names, rather than to perpetuate the pre-war dominance of foreign synthetics. This position was supported by the Council on Pharmacy and Chemistry of the American Medical Association, in whose laboratories American medicinal products have been analyzed and found to be equal and in some cases superior to foreign made products.



## NEWS ITEMS.

## Announcements.

Dr. F. Phinizy Calhoun and Dr. Arthur G. Fort announce the removal of their offices from the Candler Building to the Doctors' Building, Suite 21, corner Peachtree and Pine streets, Atlanta, Ga.

Dr. J. Cheston King announces the opening of offices, 204-5 Peachtree Building, Atlanta, Ga. Practice limited to Neuro-Psychiatry.

Dr. William L. Cousins announces the removal of his offices to Rooms 402-3 Candler Building, Atlanta, Ga.

Dr. G. W. Holmes Cheney, formerly at 20 Ponce de Leon Avenue, announces the removal of his office to 746 Peachtree Street, Atlanta, Ga. Practice limited to Diseases of Children, including Ear, Nose and Throat.

Dr. W. A. Selman announces the removal of his offices from the Candler Building to 79 Forrest Avenue, Atlanta, Ga.

Dr. Wm. F. Cross announces the removal of his offices from 705 Flatiron Building, Atlanta, Ga., to 101 North Main Street, East Point, Ga.

Dr. Lon Woodfin Grove announces the opening of offices 20 Ponce de Leon Avenue, Suite Second Floor, Atlanta, Ga. Formerly a member of the Roberts Clinic.

Dr. Carlton A. Lee, for the past twelve months on the House Staff New York Lying in Hospital and Obstetrical Service, Bellevue Hospital, New York, announces that he has entered the Practice of Medicine with offices at 79 Forrest Avenue, Atlanta, Ga.

United States Civil Service Commission, Washington, D. C., announces opening Competitive Examinations for Supervisor of Protective Social Measures \$280.00 to \$400.00 per year. Field Agent Protective Social Measures \$1,800.00 to \$3,000.00 a year. Applications will be received until further notice by Commission.

## BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

**History of Medicine** (New Third Edition). History of Medicine, With Medical Chronology, Suggestions for Study and Bibliographic Date, by Fielding H. Garrison, M. D., Lt.-Colonel, Medical Corps, U. S. Army, Surgeon-General's Office, Washington, D. C. Third Edition, Revised and Enlarged. Octavo of 942 pages with 257 portraits. W. B. Saunders Company, Philadelphia and London, 1921. Cloth, \$9.00 net.

**Diseases of the Skin** (New 9th Edition). Disease of the Skin. By Henry W. Stelwagon, M. D. Ninth Edition revised with the assistance of Henry K. Gaskill, M. D., attending Dermatologist to the Philadelphia General Hospital. 1313 pages with 401 Text Illustrations and Half-tone Plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

**The Surgical Clinics of North America** (The Mayo Number). The Surgical Clinics of North America (Issued serially, one number every other month) Volume I, Number 5 (The Mayo Clinic Number), 296 pages, with 163 illustrations. Per clinic year (February 1921 to December 1921).



Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

**The Surgical Clinics of North America** (The New York Number). The Surgical Clinics of North America (Issued serially, one number every other month) Volume I, Number 6 (The New York Number), 295 pages, including complete Index to Volume I and 122 illustrations. Per clinic year (February 1921 to December 1921). Paper \$12.00 net; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

**1920 Collected Papers of The Mayo Clinic, Rochester, Minn.** Octavo of 1392 pages, 446 illustrations. Philadelphia and London: W. B. Saunders Company. Cloth, \$12.00 net.

**Treatment of Bronchial Asthma with Autogenous Defibrinated Blood.** A. C.

Henske (Mo. State Med. Jour., Dec., 1921.) has given ten injections of 25 c.c. each of autogenous defibrinated blood into the interscapular space of sixteen patients having typical asthmatic attacks. No attempt was made to determine the causative protein or proteins. Two of the cases, who had syphilis, made complete recoveries after taking anti-luetic treatment. Henske considers this form of treatment superior to any other form of therapy which he has used. It has given permanent relief in 56 per cent of the cases; and temporary relief in 25 per cent; and, in the remainder, it was of no benefit.

**Relation Between Hypertension, Myocarditis, and Nephritis.** H. A. Christian (Ill. Med. Jour., Dec., 1921) states that at present we are in doubt as to the ultimate cause of hypertension. However, the mechanism of its production seems surely to be due to a disturbance in the small

## ATTENTION County Societies

Complete reports from County Societies should be sent in to the Secretary of the Association at the earliest possible time. Give complete list of all officers since the roll of Delegates will be called on the first day of the Annual Meeting. Give list of all Doctors in each county who are eligible for membership but are not members, as well as the active membership. **Let's have more 100% Counties than ever before in the history of the Association.**

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blood vessels. In some patients, hypertension bears a casual relation to nephritis. Both in hypertension, the high blood pressure type of nephritis, and in myocarditis, a lesion of the smaller blood vessels is an important part of the etiology.

**Value and Comparisons of Renal Efficiency Tests.** J. D. Comrie (Lancet, Dec. 3, 1921.) believes that the practically simultaneous estimation of the blood urea, urea concentration of the urine, and the phenolsulphonaphthalein excretion gives very reliable evidence of the efficiency of the renal function. The blood urea may be normal even in the presence of considerable renal damage, but the immediate prognosis, in such cases is good. If the blood urea is more than 50 mgms. per 100 c.c. of blood, the condition is serious. If the blood urea is persistently more than 100 mgms., a fatal prognosis is justifiable. Comrie considers the phenolsulphonaphthalein test to be the most valuable single

test. An excretion of 70 per cent or more, in two hours, means good kidney function; an excretion of 50 per cent or more is compatible with complete recovery; and excretion of less than 20 per cent usually signifies death within a year. A urea concentration in the urine of 3.5 per cent or more indicates satisfactory renal function; if the urea concentration persists below 2 per cent, in spite of treatment, renal impairment is indicated.

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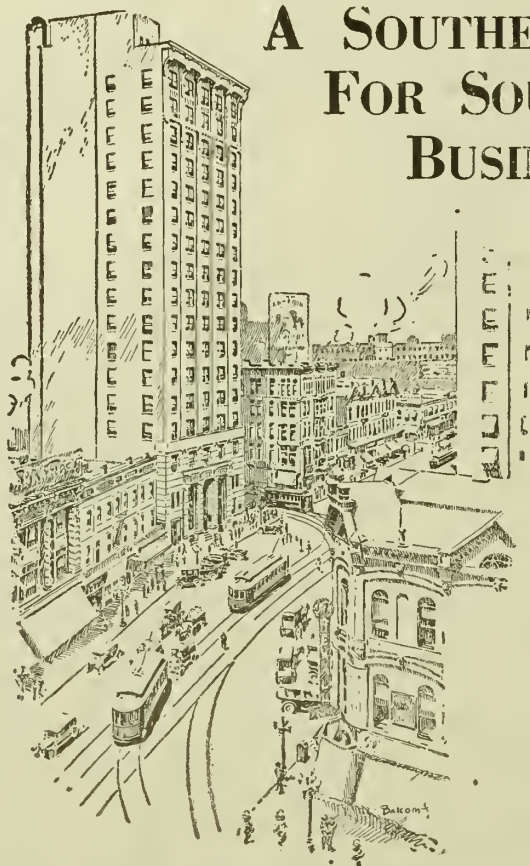
The next annual meeting of the American Medical Association will be held in St. Louis, Mo., May 22-26, 1922. A list of the leading hotels appear below. Make your reservations early. Write to Dr. Alex R. Craig, Secretary, A. M. A., 535 N. Dearborn St., Chicago, for Identification Certificate for special reduced rates of one and one-half fare for the round trip. One or two special Pullmans will be run from Georgia. Get ready to get aboard!

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### ORIGINAL ARTICLES

#### THE LYMPHATICS IN CANCER\*

J. L. Campbell, M. D., F. A. C. S.,

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Atlanta, Ga.

"If all the deaths from cancer were correctly ascertained and certified, it is probable that the total for the United States would approach or exceed 100,000 per annum. . . . Largely because of neglect and ignorance, nine cases out of ten are now fatal. Yet, if proper precaution and treatment were observed, it is possible that over half of these deaths could be prevented." <sup>(1)</sup>

This is a terrible indictment of the medical profession.

It is my purpose in presenting this paper to emphasize the statement of Dr. John B. Murphy, that, "It is the time and not the extent of the operation that controls the final outcome of cancer." <sup>(2)</sup> If treatment is delayed until the lymph channels are filled with cancer cells no operation, however extensive, will effect a cure.

Early carcinoma is curable because it is purely local. Both clinical observation and experimental data have failed to demonstrate the time of beginning metastases. Francis C. Wood, after a series of experiments, concluded that, "The frequency of metastases is a function of the time that the tumor remains in the body." <sup>(3)</sup> The characteristic features of malignant tumors are infiltration, rapid growth, formation of metastases and general intoxica-

tion. <sup>(4)</sup> "It is generally conceded that the escape of malignant cells and their transportation to remote parts of the body occur first through the lymph vessels" <sup>(5)</sup>—From an analysis of 10,315 autopsies on carcinoma patients, performed in pathological institutions of the world, Dr. John B. Murphy found the lymph nodes primarily involved in every case in which metastasis had occurred, 79.8%. <sup>(6)</sup>

For further proof that the lymph vessels are the route of distribution, we find that cancer of the breast, occurring in women during the period of lactation is rapidly fatal from general lymphatic involvement. The younger the patient the more rapid and extensive the metastasis. Cancer in fat women is also very fatal. Murphy once stated that he did not recall ever having seen a fat woman under 40 years of age permanently cured of cancer of the breast. <sup>(7)</sup> Massage and rough manipulation of a malignant tumor is almost surely fatal.

The lymphatics originate in the meshes of the connective tissue. They have closed, club like extremities, the walls of which consist of a single layer of endothelial cells. After ramifying in a net work of capillaries, somewhat larger and more numerous than the veins, they converge to collecting tubules, which enter a gland and again break up into capillaries, <sup>(8)</sup> this arrangement closely resembling the portal circulation. There is always a rich anastomosis by convergence and lateral communicating branches. <sup>(9)</sup>

The lymphatic system as a whole may be compared to two great cones, their apices occupying points on the sub-clavian veins where the thoracic duct on the left

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



and right lymphatic duct on the right enter the vessels. The bases are formed by the peripheral capillaries.

The base of the right cone corresponds to the capillaries arising in the right upper quadrant of the body, including the right lung, the right side of the heart and part of the convex surface of the liver. (10) Collecting tubules from this area, converge to form the right lymphatic duct which is an inch or less in length. The base of the left cone is made up of capillaries from the remaining parts of the body, which converge on the thoracic duct.

In the normal individual, the flow of lymph proceeds in certain directions. There is an impelling force behind it, consequently, progress is slow—in the capillaries, a mere trickle. When a collecting tubule, or gland, is blocked a backward flow takes place, and the fluid finds an outlet through other channels, for there are no valves in the lymph vessels until the very largest ones are encountered, and even there changes in the walls and calibre may easily allow a backward flow.

The great cones are made up of smaller cones, each presenting a base of capillaries, converging to a collecting tubule. A number of these cones may enter a single node, which then gives off an efferent vessel to a larger or more central node.

Lymph nodes, draining a cancer area appear, according to Ewing (11) and other observers, to undergo a period of preparation. They become swollen and change their color to a purer red, and many new nodes are forming along the course of the channels. There is a general hyperplasia with catarrhal excitation of the endothelial cells in the germinal sinuses, the nodes may become fibrous and atrophy or be invaded by extensive fatty infiltration, "Thus their effectiveness as fillers are greatly reduced" — (Ewing). These changes are doubtless due to toxins produced in the cancer area.

Metastasis may take place by two processes—first by cell emboli, a clump of

cells invade the lymph capillaries, and are carried in the lymph stream to the nearest node, and second, lymphatic permeation or a continuous growth of cells along the lymph channels. (12) It is possibly true that both processes may be present at the same time.

If we accept the statement that the lymphatic system is a series of cones, it is especially necessary to locate and remove the collecting channels and nodes of each area, as a prophylactic measure if metastasis has not already begun.

It is estimated that a little more than 13% of all cancers are located in the mammary gland and the mouth. (13) Therefore the lymphatics of these regions are of especial interest to the surgeon.

Owing to the more frequent location of cancers of the buccal cavity on the lip, tongue and gums, we will limit our study to the drainage of these three areas.

If we follow Poirier and Cuneo in the description of the lymphatics of the mouth, we find that the upper lip is drained by ten collecting channels—five on either side. These converge to a gland situated on the lower border of the mandible at the point where it is crossed by the facial artery. From these, channels pass to the sub-maxillary group and sometimes to a node lateral to the internal jugular vein, just below the parotid gland.

In the lower lip, channels from the mesial two-thirds of the cutaneous surface, drain into the submental node, while those from the lateral third pass over the lower border of the mandible and enter the anterior nodes of the sub-maxillary group. Channels from the whole mucous surface pass along the facial artery, to the posterior nodes of the sub-maxillary group. There is free communication between the two sides, but owing, perhaps to the embryology of the upper lip, no communication exists across the median line.

The lymphatic drainage from the gums is quite simple. Tributaries to the main



trunk arise from the mesial surface and passing between the teeth enter a collecting channel situated near the margin of the gum which runs back to a point opposite the last molar tooth, then dips down to enter the posterior nodes of the sub-maxillary group. The tributaries of these trunk channels communicate freely with the lymphatics of the floor and roof of the mouth, cheek and lip.

Lymphatics of the tongue are divided into two groups of capillaries situated superficial and deep, owing perhaps to its embryology, there is very little or no communication between those of the body and the base. The collecting channels are arranged in four groups.

First—The apical capillaries are drained by two main channels on either side, which pass first downward and forward to the inner surface of the mandible, where they change their course and pass to different nodes, one to the sub-mental, the other down the lateral aspect of the neck to a node on the internal jugular vein, just where it is crossed by the omohyoid muscle.

Second—Channels from the lateral and superficial capillaries of the body divide into two groups, and pass at first, vertically downward to the floor of the mouth, some lateral to the sub-lingual gland, and others mesial to it. The lateral ones terminate in the most anterior of the sub-maxillary nodes. The mesial ones pass to the glands of the internal jugular chain, the majority terminating in a large node placed beneath the posterior belly of the digastric muscle.

Third—The posterior or basal lymphatics are characterized by a free anastomosis of capillaries from both sides—a very important fact to be borne in mind. They are also closely associated with the pillars of the fauces and constrictor muscles of the pharynx. All these channels terminate in the large nodes above mentioned.

Fourth—The central capillaries of the

base anastomose with the preceding ones on both sides.

To sum up, the lymphatics of the tongue terminate in the sub-mental, sub-maxillary and internal jugular chain; but by far the most important of these nodes are those of the internal jugular chain, from beneath the digastric to the omohyoid; and in most cases the vein should be reflected from well above the digastric to below the omohyoid muscle.

Still following in the main the description of Poirier, Cuneo, Gray and others, we find the lymphatics of the mammary gland and the anterior thoracic wall form a close association, except those of the areola which are entirely independent of the surrounding capillaries. So far as the thoracic wall is concerned, the lymphatic channels converge laterally, some going above and some below the areola to form homolateral channels, which pass directly into the axilla. There are, however, three accessory channels, one draining contralaterally, another upward into the supra-clavicular nodes, and third, several channels pierce the pectoral muscle, following the course of the perforating branches of the internal mammary arteries, empty into retro-sternal nodes. It is through this latter route that metastasis may occur in the iliac and inguinal region.

Lymphatics of the mammary glands proper are arranged in three main groups—the perilobular, periductal and the areola or sub-areola plexuses. From the perilobular plexus, we have two great sets of capillary cones, one ending at a point just behind the nipple the others unite with the main accessory channels of the thoracic wall and drain into the axilla and retrosternal nodes.

The sub-areola plexus is made up of the densest capillary network in the body. If injected with mercury in a subject whose death occurred during the period of lactation, it will have the appearance of a solid silvery mass, extending like a cone into the gland substance. The capillaries are so closely interwoven that it requires

a strong lens to distinguish between them and the connective tissue. From these capillaries there are two main collecting channels, one rising from the upper mesial quadrant of the areola, passes upward and then downward, along the mesial margin of the areola, turns laterally to the border of the pectoralis major muscle, where it is joined by the second and smaller one, which rises from the lower lateral quadrant of the areola. It then runs along the border of the pectoralis major muscle to enter the central group of axillary nodes.

Time will not permit a description of the axillary nodes, and I will simply say that in any case where cancer is even suspected, all the lymph bearing tissue, as well as the nodes in the axilla, should be thoroughly removed.

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- (4) Neoplastic Diseases, Ewing, page 76.
- (5-6-7) Clinic, Jno. B. Murphy, February, 1916.
- (8) Poirier and Cuneo.
- (9) Sappy quoted by Poirier and Cuneo.
- (10) Gray's Anatomy.
- (11-12) Neoplastic Diseases, Jas. Ewing.
- (13) Hoffman.

### CLASSIFICATION AND TREATMENT OF HEMORRHOIDS.

Marion C. Pruitt, M. D., F. R. C. S.  
Atlanta, Ga.

The term piles or hemorrhoids is applied to a varicosity and hypertrophy of the veins of the anal canal and lower part of the rectum. Anatomically two varieties are recognized—external and internal. External piles remain outside the anus and consist of dilated anal veins covered with skin and mucous membrane in varying proportions. They implicate the inferior hemorrhoidal veins. Internal piles are located within or above the sphincter and consist of dilated terminal branches of the superior hemorrhoidal veins covered solely by mucous membrane. Frequently both varieties co-exist and are then called mixed piles.

#### External Piles.

Several different conditions are included under the term "external piles."

#### 1. Dilatation of the anal veins:

This variety consists of a dilatation of the veins surrounding the anal orifices, the turgescence of which is only evident when the patient strains, thus causing them to form a distinct cushion-like ring around the anal margin. This type usually occurs in patients who suffer from chronic constipation and live sedentary lives. It gives rise to no discomfort other than a feeling of fullness and uneasiness after defecation. This sensation as if the bowel had not been completely emptied may cause excessive straining and lead to hypertrophy and induration of the external sphincter ani. The treatment should be directed to the relief of the chronic constipation. In cases of marked hypertrophy of the sphincter a dilatation or a division may be necessary for relief.

#### 2. Venous or thrombotic piles:

The simplest form of external piles is the small thin-walled bluish tumor, a dilated anal vein, which may or may not be painful, which is always troublesome in walking and in toilet of the parts. Extravasation of blood takes place around the dilated peri-anal veins which have been ruptured by violent straining during defecation or some other muscular efforts. A thrombosis is formed and we get the "Thrombotic Pile." The simplest form of treatment for this type is rest in bed and the local application of a cooling astringent lotion or ice. This, in time, will effect a cure, but the quickest cure is obtained by slitting open the pile under local anaesthesia with a sharp bistoury, turning out the blood clot and packing the cavity with a bit of gauze. This usually gives rapid, complete and permanent cure.

#### 3. Connective tissue, dog-ear or sentinel piles:

This type consists merely of an hypertrophied tag of perianal skin. It does not contain any varicose veins and strictly speaking is not a pile. These tags frequently cause irritation and itching around the anus and may become infected and give rise to a perianal abscess. These tags should be excised under local anaesthesia,



the bleeding arrested and the wound sutured.

One of my recent cases, "H. B. C.," who had a large hypertrophied "dog-ear" tag of long standing, developed a very marked and persistent pruritis ani which resisted all form of local medication and was only relieved after excision of the tag and x-ray treatment of the local cutaneous parts.

#### 4. Inflammatory piles:

Inflammatory piles may be either external or internal in type and should be treated by rest in bed, the application of mild antiseptics and heat or cold until the inflammation has subsided. Suppositories are sometimes helpful. After the inflammation has subsided the method of treatment depends on the type of piles. Under no circumstances should radical treatment be considered until all inflammation has subsided.

#### Internal Piles.

Internal piles are the most common and most important variety. Each pile consists of an elongated, pear-shaped swelling covered with mucous membrane, enclosing a central arterial twig surrounded by a bunch of varicose and sacculated veins. There may be only one pile present situated most frequently in the right anterior quadrant of the rectum, or there may be several scattered around the bowel.

Clinically three degrees or stages may be recognized:

First degree. The piles remain inside the anal canal and do not protrude during defecation or straining, the veins are varicose but do not form very distinct masses.

Second degree. The veins are dilated and sacculated, forming fleshy swellings which protrude during defecation but return spontaneously after the act, or can be returned by the patient.

Third degree. In this degree the piles remain protruded and can only be returned with much difficulty, if at all. These are frequently complicated by a prolapse of the mucous membrane of the rectum.

#### Treatment of Internal Piles.

The treatment of internal piles may be divided into non-operative and operative.

1. Non-operative treatment. Piles of the first degree, are usually slight, evidenced by a streaking of the stool or a few drops of blood during defecation, which is most marked when the rectum is loaded with hardened feces. Keeping the bowels regular and the stools soft by simple laxatives and the avoidance of drastic purgatives is usually all that is needed. Suppositories containing tannic acid, hazilene, adrenalin, etc., may be used in more persistent cases.

Piles of the second and third degree. Some cases of internal piles of the second and third degrees may be treated by regulation of the bowels, diet, habits, etc., but usually more radical treatment is required.

The injection of piles with a carbolic acid solution is a method of treatment of considerable importance of which little is written in the way of commendation. During 1917 and 1918 I used this method extensively with very gratifying results in the treatment of second and third degree internal piles in Allied soldiers suffering from neurasthenia, shell shock and other conditions where a general anaesthetic was not advisable and a local anaesthetic unsatisfactory. Since then equally satisfactory results have been obtained in the treatment of private patients.

The object of the injection treatment is the same as that in the treatment of naevi, that is, to produce by irritation sufficient fibrosis to obliterate the network of dilated blood vessels forming the pile, thus causing it to shrink. The irritation should not be sufficient to cause sloughing of the tissues. This method is applicable only to internal piles of the second or third degree which are not complicated by marked prolapse of the mucous membrane of the rectum, and then, only when there is no active inflammation of the local parts. External hemorrhoids should not receive this treatment, since they will be aggravated by the swelling and no permanent benefit may be expected.

The solution for injection is composed of carbolic acid (95%) one part, glycerine three parts, water four parts.



The following method is used by the author:

The patient sits on the stool for ten minutes and strains down as he would to evacuate the bowels. He is then put on the table in the Sims' position. The upper buttock is raised so as to expose the anus. By again straining down the piles will usually protrude and can be easily injected. Two to four drops, according to the size of the pile, should be injected into the center of each tumor with an ordinary hypodermic syringe. Not more than two tumors should be injected at one time. One week should elapse before other tumors are injected. Occasionally it is necessary to inject a pile the second time, but this should not be done in less than from three to six weeks.

The treatment causes little pain, and, where the pile is not very large, the patient may go about his business the next day; however, he will be more comfortable if he remains in bed for twenty-four hours. No special preparation is necessary and the relief of hemorrhage and the disappearance of the swelling are usually rapid and permanent. This is not a radical cure for large internal piles of the third degree complicated by marked prolapse of the mucous membrane. However, in selected cases relief is prompt and this procedure is much to be preferred to the more radical methods which are expected to bring about a permanent cure.

**Precaution.** Inject only internal piles of the second and third degrees. Do not inject over four drops into each pile and not more than two tumors at one time. Do not inject piles complicated by active inflammation, rectal fistulae, fissures or sloughing. Promise relief only and not a radical cure.

**2. Operative Treatment.** There have been many operative procedures devised for the treatment of hemorrhoids. Some of the text books describe as many as thirteen distinct operations to accomplish the same result. But no rational present-day surgeon could consistently recommend several of the different methods. Any case

of piles suitable for operation can be successfully treated by some one of the four methods mentioned herewith:

1. Ligation.
2. Excision.
3. Clamp and cautery.
4. Whitehead's Operation.

The technique of any one of these operations may be found in any standard text book on surgery. Whichever operation is selected the preliminary preparation is the same. It is desirable that the bowels be cleared by catharsis for two days prior to operation, otherwise, castor oil should be given about noon on the day preceding the operation and the bowels washed out with a warm s. s. enema about three hours before operation. Castor oil is the cathartic of choice because its secondary astringent effect avoids dribbling during operation which is so often present after such drugs as magnesium sulphate. Local or general anaesthesia may be used according to the indications in each individual case.

Complete dilatation of the sphincter affords much comfort to the convalescence of the patient. Avoid the placing of a tube in the rectum after operation as it does not prevent hemorrhage and is not needed for the expulsion of gas because the sphincter muscle is dilated and gas has a free passage. It only acts as a foreign body and an irritant to cause contraction of the sphincter and when it begins to regain tonicity and causes much discomfort to the patient. Binnie states that this dressing should be reserved for personal enemies and malefactors as it does no good and can cause much suffering.

The operation chosen will depend on the type of the case, but whichever operation is chosen great care should be used to apply the clamp or forceps on the long axis of the bowel. This precaution will go a long way to prevent post-operative stricture of the rectum.

#### Conclusions.

1. Each case of hemorrhoids should be studied carefully and an exact knowledge of the pathological condition obtained in

order to determine the treatment best suited to the relief of the sufferer.

2. Many cases of internal piles of the second and third degree can be permanently relieved by the non-operative procedure of injection.

3. This method of treatment is not suitable to those cases complicated by other conditions such as fistulae and marked prolapse of the mucous membrane of the rectum.

4. Those cases unsuitable for the injection treatment may be relieved by one of the above mentioned operative procedures.

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#### TREATMENT OF HEMORRHOIDS.

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During the last two years there have been operated in Harbin Hospital sixty-three cases of hemorrhoids by the clamp and cautery method while during a period of ten years preceding there were eighty-three operations by the ligature and excision method, and the contrast of advantages in favor of the clamp and cautery method has been so striking that it warrants emphasis.

We can not be sure of all the causes of hemorrhoids, but the essential anatomical reason is the absence of valves in the hemorrhoidal veins plus the upright position of the



descending colon, along with constipation with its attendant effects of trauma.

Very mild cases may be palliated by administering laxatives that bring about semi-solid stools, thus avoiding the trauma from hardened feces or tenesmus. Compound licorice powder has this advantage, and the use of ointment should be encouraged as a routine after bath.

The distinction between external and internal piles is one of academic interest, because, when hemorrhoids have developed to the extent of becoming troublesome, both types become blended.

It is perhaps true that there is no equal amount of human suffering from endurable causes to that which proceeds from hemorrhoids, and it is borne with fortitude through fear of an operation. The technique of the clamp and cautery method is so simple, and the post-operative pain so slight that much needless suffering would be avoided if patients knew the facts of the case. Being an exception, this operation can be done with satisfaction in the home, for, in four or five days, the patient may be allowed to sit up. The usual indications for operation are hemorrhage, pain, protrusion and itching. Of course, before operation has been advised, a general examination should be made as to causes of certain bladder tenesmus, stricture or cancer of the rectum, and if any impassible stricture of the urethra should exist, troublesome retention of the urine may follow.

There is a traditional contraindication prevalent that acutely inflamed and protruding hemorrhoids should not be operated. This, I believe, is a mistake, because we have repeatedly operated for such cases without any complications, relieving the patient of the unavoidable pain that attends a subsiding inflammatory condition. We have also made it a rule to deal with post-partum hemorrhoids in the same way, immediately after delivery, of course using an anesthetic. Rectal polypi usually are not discovered until the rectum has been dilated, and the treatment differs in no way from that of hemorrhoids.

The preliminary treatment is very important and consists in giving two ounces of Castor oil at 4 P. M. the day before, and a

soap suds enema three hours before operation. The parts should be shaved and scrubbed, and, after the sphincter has been divulsed, the rectal mucous membrane should be sponged out with bichloride solution, and then, after painting the skin and anus, the rectum should be thoroughly swabbed out with iodine mop. The lithotomy position is preferred. Dilating the sphincter muscle should be done with care, as some cases offer very little resistance, while others require considerable force and time. This resistance should be carefully estimated, especially in women. In dilating with the thumbs, counter-pressure should be made with the palms applied to the buttocks. We have made it a rule to do hemorrhoidectomy with major operations, such as hysterectomies and cholecystectomies, and have yet to find cause for regretting this. Of course this rule should not apply to cases offering an abnormal risk.

After dilating the sphincter the gloved hands should be scrubbed and rectal mucosa painted again with iodine. In only a very small percent of the cases would we prefer the ligature and excision method, where tumors are very numerous and large with some prolapse of the rectum. The great objection to this method is the prolonged convalescence and post-operative pain, which is, at times, very excruciating and requires the use of morphine, frequently repeated. In 1914 I heard a rectal surgeon in London say that post operative pain is nearly always due to infection, and with open lymphatics in a region supplied by numerous nerve filaments and ever present infection, this theory seems plausible, although I was skeptical at first. In the clamp and cautery method there are no open lymphatics which, to my mind, explains the comparative absence of post-operative pain, and in our experience, it is an exceptional occurrence that morphine is needed for post-operative pain.

It seems to be a matter of indifference as to the angle of applying the clamp, bearing in mind the necessity of including the bulk of the tumor after pulling down the rectal portion. It seems better to avoid trimming the tumor which should be clamped slightly above the muco-cutaneous juncture. After



the clamp has been applied a slit piece of sterile paste-board should be slipped over the stump to avoid burning the skin, which would make a painful accident. After trimming off the tumor from the clamp, the stump may be cauterized by an electric cautery knife or a small soldering iron heated to dull red heat. After the clamp has been removed it should be cooled in water before being used again. After two or three tumors have been dealt with, if two or more smaller ones need removal, they should be grasped so as to make a longer stump to avoid cicatricial contraction, after the clamp has been applied. Any bleeding about the stumps should be ligated with cat-gut. Vaseline should be poked in the rectum with artery forceps.

We have tried the use of rectal tubes to draw off gases, but they have provoked such pain from contraction of the sphincter that we do not use them any more. Thorough dilation should accomplish the same purpose.

Post operative pain is usually negligible, but the use of the catheter occasionally is needed. We have had only one case of hemorrhage, which followed the excision method and that was in an unsuspected hemophiliac a man thirty-five years old, who bled for three or four weeks, requiring three transfusions of citrated blood. A series of quilted sutures around the anus, including mucous membrane and skin tied en-masse, seemed to finally control it. These were allowed to slough away. A cone shaped bung may be made by wrapping gauze over a colon tube, which should be sufficient to arrest cases of ordinary hemorrhages by direct pressure against bleeding surfaces. The stumps should be kept greased, and usually provoke an unpleasant odor which should be explained to the patient. The bowels should be moved on the fourth day, using compound licorice powder, followed by epsom salts if needed. The patient's mind should be disabused from the fear of pain from bowel movement, and he should avoid straining at stool.

### Conclusions.

1. The causes of hemorrhoids lie in the fact that the hemorrhoidal veins have no valves, and the descending colon having an upright position, gravity, and trauma from constipation, make conditions that favor the production of hemorrhoids.

2. A patient's own suffering is sufficient indication for an operation.

3. Pre-operative treatment should be rigidly carried out to prevent pain from infection.

4. The indications for operation are stronger in the acute inflammatory or post-partum type and hemorrhoidectomy should be practiced more often in connection with other operations.

5. Thorough dilation of the sphincter is very essential to proper aseptic technique as well as to post-operative comfort.

6. Post-operative pain seems to be greatly due to infection, which reason lends favor to the clamp-cautery method.

7. There has been but one case of hemorrhage in the entire series, and that was in a hemophiliac, from the excision method, and mortalities have been zero. No cases have applied for re-operation.

8. From a review of eighty-three operations by ligature and excision, and sixty-three by clamp and cautery method, post operative comfort and shorter convalescence favor the latter.

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### ABSTRACT.

**The Treatment of Hyperthyroidism by Radiation.** G. E. Pfahler (Medical Clin. N. A., Nov., 1921.) calls attention to the great value of radiation in the treatment of hyperthyroidism. He quotes Aub and Means to the effect that the chance of cure in exophthalmic goiter is as good with Roentgen-ray treatment as with surgery in groups of equal toxicity and that the former method is preferable for the danger of fatal outcome is less. Almost as good results have been obtained with radium as with x-rays.

## ANEURYSM OF DESCENDING ARCH OF AORTA.\*

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I have recently had an interesting case of fusiform aneurysm of the descending portion of the arch which was thought to be up to the time of death a true aneurysm. Allow me to quote from Allbutt's Cavendish Lecture: "Disease when seated in the vital thoracic aorta, produces peculiar effects and if inflammatory or acutely degenerating, the issue may be correspondingly great. In a little crack of the brain, one so small that an infant might grasp it, lies the minister of all that makes life worth living; and but few inches below it where brain and spine unite, is a small tract where lies the knot of life itself. The upper tract has its times of energy and of repose, by sleep its raveled sleeve is knitted up; but the knot of life itself knows no pause, no quiescence; let its vigilance be at fault for a few seconds and the busy frame it governs will drop into silence. Save as a lesson in physiology these parts are strange to us; yet with it is united another unsleeping minister of life, our familiar, of whose pulses Harvey rapt into saying after Aristotle that 'They are of the spirit, of the blood and act superiorly to the powers of the elements, and that the soul in this spirit and blood is identical with the essence of the stars.' When the pulses of this instrument beat in harmony, we feel that all is well; when they are jangled and out of tune we are dismayed. Often when in the still night I hear, as I lie, the calm and continual rhythm of my familiar spirit ever winnowing boon from bane, I am lost in wonder at the procession of these nights of human time, at this perpetual beat of the manifold tides of life."

In the case which I shall report the heart and the aorta showed advanced disease though the individual had suffered no

inconvenience until a short time before death. It is strange to my mind that the heart can maintain its functions when so grossly diseased; its power of endurance seems to me the most amazing phenomena of life.

Time does not permit a complete discussion either of the subject of aneurysm or of arterio-sclerotic changes in the arch. Even a discussion of the familiar signs of arterio-sclerosis alone would take up too much time and would not allow me an opportunity to present my case.

I saw this patient first on the 10th of September. A male aged 38 whose complaint was pain under the sternum; worse after exercise. The past history which I obtained from him at that time was unimportant except for scarlet fever and diphtheria when a child. He had always been well until his present trouble, which began one month before he came to me. During this month, he had had two or three attacks of severe aching pain in the left chest lasting from two to five minutes, and associated with shortness of breath, sweating, nausea and vomiting. The attacks were relieved by sitting down. Beginning two weeks prior to the time when I first saw him, he had had considerable dyspnoea on exertion and for several nights previous, sufficient orthopnea that he was obliged to have more pillows. Six years ago he reached his maximum weight of 214 pounds. When he came to me he weighed 176 pounds, and he seemed well nourished and his development was good.

Moderately excessive pulsation was noticeable over the precordia and in the right neck. The apex on percussion was 13.5 c. m. out in the fifth space well beyond the mid-clavicular line, and 4 c. m. to the right of the mid-sternal line and 8.5 c. m. across the base. There was a loud, blowing systolic murmur at the apex. The brachials were distinctly palpable. The pulse was of poor volume. Blood pressure in the left arm—was sys-

\* Read before the Sixth District Medical Society, Macon, Ga., December 14, 1921.



tolic 142 and diastolic 95. Posteriorly there were coarse respiratory rales between the scapulae and at the bases of the lungs. Both knee jerks were exaggerated. The pulse on the table was 64, and standing 106. The liver began at the sixth space and could be felt 3 c. m. below the costal margin in the nipple line, and there was moderate tenderness in the epigastrium. Because of the systolic murmur at the apex, the poor pulse volume and the tachycardia, I felt that my patient was suffering from cardiac asthenia, and put him to bed where he remained until the 29th of September or for nearly three weeks.

At the expiration of this rest in bed, he presented a somewhat different picture. His systolic blood pressure had risen to 200. A diastolic murmur could be heard over the second and third left interspaces and the second right interspace and with a systolic murmur at the apex of much lessened intensity. He was allowed moderate exercise.

On the 5th of the following month one week later, he was gone over again. He had considerable precordial and right neck pulsation. In the right arm the blood pressure was systolic 180, diastolic 30; and in the left arm systolic 148 and diastolic 90. The left radial and brachial pulse was soft, compressible and the pulsation was difficult to feel; pulse in the right radial and brachial was full, bounding and distinctly corrigan. Pulsation could be felt in the right carotid and hardly felt at all in the left carotid. The apex was seen and felt 13 c. m. out from the mid-sternal line in the fourth space. The diastolic murmur at the base was plainly audible, as was also the systolic murmur at the apex and base. Posteriorly there was distinctly more dullness between the spine and the scapular border at its upper portion to the left than to the right. There was roughened breathing over the lower portion of both lungs, and it was more marked over the left. There was noticeable bulging of the eyes,

and Von Graeffe's sign was positive. At this time, after very particular questioning, he acknowledged having had a penile lesion 20 years previous. He did not tell me before as he had no idea that it was specific, or was of any importance.

On the 15th of the month ten days later his orthopnea was extreme. He had more or less constant pain in the left scapular region and a slight systolic swashing sound could be heard in the left axilla.

On the 5th of the following month three weeks later, he was unable to lie down and was obliged to spend his nights in a Morris chair. He had attacks of severe pain in the left scapular region and in the left chest, with more or less constant nausea, fullness in the epigastrium and frequent eructations of gas. The systolic murmur which was heard three weeks previous and which was thought to be a bruit was much louder, distinctly swashing in character and could be heard over the whole left axillary region. The exophthalmos had become more pronounced. No pulsation could be felt in the left carotid or the left arm. The pain in the left scapular region had become so intense that at times it was necessary to administer morphine. The patient had developed a rather persistent dry cough, though not brassy in character. Several examinations of the urine were made; hyaline and granular casts were found in all specimens. When the patient was first seen, his blood gave a strongly positive Wassermann reaction. There was never at any time a tracheal tug, or was there any alternation in the voice or dysphagia, or any inequality of the pupils.

On the evening of the 8th the patient slid out of his chair and with no complaint breathed his last.

Post mortem findings in this case were most interesting. The heart was much enlarged and there was very considerable left ventricular hypertrophy. The aortic valve cusps were sclerosed especially at their bases and coaptation of the cusp



margin was not good. The aorta was enlarged at its first portion, then narrowed down somewhat in the transverse portion, with a considerable dilatation of the descending portion; the beginning of which lies just underneath the left carotid and the left subclavian. This dilated portion of the descending arch extended for a distance of 8 c. m. The greatest circumference of the arch at this portion was 12 c. m. The circumference of the transverse portion between the neck vessels was 8.5 c. m. In the thoracic aorta below the dilation, the circumference was 7.5 c. m. This gave the aneurism in its greatest dimension a diameter of 4 c. m. The aortic wall was considerably thickened and the intima showed much disease; old patches of atheroma heavily fibrosed, some with cup-like depressions in their center, which together with the raised fibrous patches gave the aorta a very uneven appearance. Other patches of atheroma were of more recent date, some were as yet only acute inflammatory indurations, in places showing exfoliation of the intima. There was, however, no distinct break in the intima or separation of the intima from the media. The aneurysm was of the fusiform type.

It is interesting that a fusiform aneurysm of the arch no larger than this could produce such an array of signs and symptoms.

#### X-ray Examination.

Examination—Chest and Teeth.

Findings—Teeth are negative.

Lungs appear normal.

Heart is large.

The arch of the aorta is greatly increased in breadth, both to right and left. This large shadow is seen to pulsate when viewed in the fluoroscope.

Diagnosis—Aneurysm of arch of aorta.

## WHITHER ARE WE DRIFTING AS A PROFESSION?\*

### Some Facts Worthy Our Consideration.

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Americus, Ga.

A distinguished statesman once remarked: "Two things grow better with age, 'wine and judges.'" Can we not apply this analogy to the great science of medicine? Are we, as a profession, keeping up the high standard set by our forefathers, and making the necessary progress to meet the demands of twentieth century requirements? Or are we drifting into the by-ways, specialties, commercial short-stops, the get-rich-quick advertising schemes, thus compromising our professional calling with the Trades-Unions, Industrial Insurance Companies, the Pseudo-sciences, such as the Chiropractic, Osteopathic, Christian Science or Mind healers, etc., etc.

It is well known that these so-called sciences are rapidly filling our country and spreading their doctrines into every community; sowing seed of superstition and ignorance, causing discord and discontentment among all classes with whom they come in contact.

Strange as it may seem, we have a spirit of commercialism in the medical profession of the twentieth century that is displayed along many angles, but this unfortunate spirit does not exhibit itself quite so bombastically as among the fellows of these previously mentioned pseudo-sciences. We have a few educated M. D.'s, who for the sake of the monetary feature, coupled with other conditions best known to themselves, have, in a measure, abandoned the regular profession and aligned themselves with a number of the pseudo-science followers, but retain their degree of M. D., thus giving them more prestige in their communities, as well as enabling them to pass the various examining boards; having been previously taught and drilled in the real merits and essentials of medicine and surgery, while tak-

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ing their regular medical course in a medical college. This drifting tendency on the part of the medical profession is beginning to assume noticeable proportions, and should be taken up and carefully considered by our educators in their conferences on medical education under the auspices of the American Medical Association.

There seems to be a state of discontent, not only in the medical profession, but in all of the professions. It seems to be one of the many unfortunate sequels of the world war, and is observed more distinctly in the medical profession than any of the other learned professions. Why should this be true in this enlightened age? In answering this question, a preponderous one, in the writer's judgment, some of the indirect causes are to be found in the various Pseudo-Sciences that have taken on new life since the world war and are asserting their bombastic propagandism before the uneducated credulous populace. Then too, while all of this seeming conspiracy to undermine the medical profession is going on, the populace is taking notice of the culpability of our profession in sitting idly by and taking no steps to correct this state of things, knowing, too, that as conservators of the health of the nation, we should at least show some interest in the education and enlightenment of the public.

In view of the fact, that 33,000 trained, educated physicians and surgeons volunteered their services toward winning the great war, and shared the hardships of the doughboy, we have a just right to participate in shaping the sentiment and informing the world from an advisory point of view in matters pertaining to the health and general welfare of the nation. We should also exercise our right in protecting our committees from the so-called pseudo-science fakers, advising our municipal officials, our representatives in our State Legislatures and our Congressmen, on educational and scientific matters, offering them without prejudice, such data as will convince them. Shall we as a pro-

fession and as conservators of the public health, continue our indifference toward these pseudo-sciences and allow suffering humanity to be made victims of their sophistical arguments and manipulative adjustments? Shall we continue to sit idly by and thus become "Particeps criminis" in the damage done to their credulous victims, and in the disgrace wrought upon our twentieth century civilization? Shall we continue to cast our votes for men to represent our country in legislative halls, who are too ignorant from a health standpoint, or too polite from the pecuniary and selfish one, to do their duty toward shielding their constituents from becoming a prey to this class of so-called healers? Recall if you please, the results of some of our State legislature sessions, when a separate board of examiners was inaugurated for this special class of pseudo-healers, exempting them from examination on the most vital subjects pertaining to health. Is it not a disgrace for any State to place such a blot upon her legislative record?

We are all familiar with the founder of Osteopathy, Dr. (?) A. D. Still, of Kirksville, Mo., where the parent school of this pseudo-science was planted in the year 1894. On careful examination and investigation by a committee appointed by the Governor of Kentucky for the purpose of ascertaining the true character of this and other like schools prior to allowing their graduates permission to practice in that State, it was ascertained that not one of them was equipped for teaching the first principles of a medical education. The Kirksville school, known as the American School of Osteopathy, is owned and controlled by the A. T. Still family, and is strictly a money-making scheme for the Still family. It is the parent of half a dozen other schools of less repute, located in various parts of the United States, sending out every year hundreds of their D. O.'s to practice their so-called "manipulation" science on frail, weak humanity. We may add that the so-called pseudo-



science of Chiropractic is based on about the same dogmatic principles as that of Osteopathy, differing only in phraseology and the use of certain terms by which the D. O.'s distinguish themselves from their allied competitors, the D. C.'s; the former basing their theory on certain forms of manipulation, while the latter use the term "Adjustment." The founder of Chiropractic is one B. J. Palmer, and the parent school is located at Davenport, Iowa. This school is regarded as the great mother school of half a dozen or more located in various sections of the United States, which like the Osteopathic schools, are sending forth their graduates into all parts of the world, sowing seed of ignorance, superstition and fanaticism, and reaping as easy prey the credulous weaklings, the maimed and halt, the deaf and dumb, in fact, all comers regardless of age, race, or condition. And since the World War and President Harding's unintended discourteous "snub" to the regular medical profession, it seems that these pseudo-sciences have taken on new life, and are swarming the whole country, especially the Southland where the climatic conditions seem more favorable to their zealous propagandism.

I am reliably informed that the legislature of New Jersey, at its last session passed an act requiring all drugless healers and practitioners of other pseudo-sciences and cults to pass the regular examinations before the State Medical Examining Board. Following this legislative action, these drugless healers sought other fields, and large numbers of them have invaded the South. As many as a dozen or more have located in the State of Georgia during the past year. British Columbia contemplates solving this problem in the same way as the State of New Jersey, but adds a further restriction requiring all applicants to be graduates of a first class medical college in addition to their own special course. This, in the writer's judgment, seems to be the only solution to this great American fraud, and should

be inaugurated in every State in the Union, even at the sacrifice of money and time on the part of every true legalized physician in the United States. The Federal Government expects the regular medical profession to continue to be the guardian of the public health, and will stand at the back of the profession as such, provided we take the initiative in the fight as did the Medical Council of British Columbia. Let's make the Empire State of the South start the ball rolling, by taking a little more interest in our State politics, electing competent representatives to our State Legislature, men whom we know to be of the right kind of material, and who feel the importance of protecting our civilization, as well as the dignity of the regular medical profession, from the disgrace and humiliating influence on our present and future generations. When we consider the fact of these bold cults and pseudo-sciences keeping the lobbies of our Legislature constantly filled with their paid advocates, and that they keep on hands a large fund for no other purpose than that of remunerating those legislators who may be interested in their schemes either financially or otherwise, should we not send a delegation of our best men to see that no legislation be permitted that will be favorable to new acts that might be inaugurated each year, by this unholy pact? It is a fact, that these drugless healers, cults, patent nostrum venders, etc., etc., have at their command a million dollar fund set apart for the sole purpose of fighting all legislation that oppose them. They have their "Pickets" located not only in Washington, D. C., but in and about every State Capitol in the United States. Then, too, they have a bunch of the shrewdest lawyers at their command located in every State in the Union. To meet all these costs, the schools from which they received certificates of graduation assess each of their graduates who bears the title of D. O. or D. C., etc., a certain amount toward the up-keep of their million dollar fund.



We can readily see what a monstrous task it will be to undertake to eliminate them from our country. It is interesting to note the diversity of the various schools of healing human ailments without the use of medicine and surgery, appearing, however, only for a short season and disappearing into oblivion like the morning mist on the approach of the noon-day sun. We have the meta-physical healers, Divine healers, prayer healers, magicians, theosophy, telepathy, new-thought, auto-suggestion, hypnotism, etc., etc., all claiming to possess miraculous gifts or the secret of occult science,—a kind of mythical knowledge.

"Deep truth to others unrevealed,  
Mysteries from mankind concealed."

In many instances these professors and followers are enthusiastic, self-deceived visionaries, while in a great majority of cases they are downright frauds, practicing upon the credulity and ignorance of their patients for revenue only. We are all acquainted with that celebrated mystic of the eighteenth century, Anton Mesmer, who claimed to possess in himself an occult force derived from the stars, which he exerted upon his patients by stroking their bodies with magnets. He, in after years, discarded his theory of "Siderial Magnetism", and in the City of Paris practiced upon his patients with manipulation, aided by dimly-lighted rooms and soft music. It is a fact of history that Mr. Mesmer benefited many hysterical women and nervous men whom he treated by what he termed "Animal Magnetism". Upon investigation by a committee of physicians appointed by the French Government for the purpose of ascertaining the real facts about this man of mystery, it was quickly discovered that his theory of "Mesmerism" was a downright system of charlatanry and jugglery, and that Dr. (?) Mesmer himself was an empiric and imposter of the worst type, and was consequently driven from France.

We also have the so-called Mind healers or Christian Science sect, playing on the

fancy and imaginary powers of the over-credulous, trying to make people believe that there is no such thing as pain or disease. The founder of this beguiling sect, while sojourning in the present world, exhibited about as many eccentricities and inconsistencies in her life as the theory and practice of her teachings have exhibited before the world. Her imprudent acts and uncouth tendencies toward her three husbands, her bad treatment of her only son and legitimate heir, the many other vagaries that characterized both her youth and old age, all combined to make a character that might well be compared to an Eighteenth century witch or a twentieth century fortune hunter. When we recall the fact that her educational advantages as well as her early social privileges were of the most limited and rudimentary character, and that her only son could not read or write at the age of twenty-six, her three unhallowed marriages with a prospective fourth marriage to her coachman; these facts with her home life, coupled with her sacriligious presumption in comparing herself with Christ in the matter of healing the sick and working miracles, should repel any sane person, and cause at least the stronger minds of her thousands of followers to pause and think of this departed spirit only as a gigantic simple-minded fraud, who, actuated by no higher motives than self-aggrandizement and the filling of her coffers with the blood-money of the credulous populace, has "passed" on, leaving her ever-faithful followers as a wandering tribe in the wilderness of doubt. May the time soon come when these benighted minds may have the scale lifted from their spiritual eyes.

From the time of "Hierophant of the Egyptian Temples" down to the present, various sects and cults of pretended cures and healers of human diseases without the aid of medicines, have appeared under many and various names, all claiming to possess the power of healing through some mysterious magnetic agency of their own.

They operate entirely outside of the jurisdiction of medical science, and in a large measure, rest their claims for success upon the credulity and imagination of their deluded victims. In all such instances, however, experience and investigation have clearly shown that these are nothing short of demagogues, frauds and imposters of the worst type.

Our country is today filled with fakers of all kinds, some of whom date their origin back to the fall of Rome, when civilization was in its most chaotic state, while many others belong to our boasted twentieth century civilization. We are facing an evil—a curse—that is about as great a menace if not more far-reaching in its deleterious effects on human health, than any of those previously mentioned. I refer to the gigantic patent nostrum evil. The promoters of this curse are of our own woof and blood, and are knowingly deceiving their credulous friends and neighbors wholly for the sake of filling their coffers at the expense of the health and life of their fellowmen. We have strewn over the country in every village or cross-roads store, as well as in our city drug stores, thousands of so-called cure-alls in the shape of cough and consumption remedies, some of which contain opium and other habit-forming drugs, but under disguised names.

Hostetter's Bitters contains 44 per cent alcohol, Peruna 28 per cent, Lydia Pinkham's Compound, Ayer's Sarsaparilla, Swamp Root, Wine of Cardui, Vinol, and a host of others including Tanlac, that contain from 5 per cent to 25 per cent alcohol, many of which are today making drunkards of both sexes, in this and other countries, that permit their sale. According to the report issued by the president of the American Proprietary Medicine Association, the sum of \$181,000,000 was expended last year in the United States for patent nostrums, many of which, as previously mentioned, contain a large per cent of alcohol, morphine and other habit-forming drugs, annually making thou-

sands of drunkards and fiends to be cared for by our municipal charity associations.

Notwithstanding our Pure Food law, the increase in the use of patent nostrums, especially since the Dry law has been enacted, is astounding, to say the least. The fundamental weakness of this Pure Food law, is that it does not touch the vital matter of newspaper advertising. Printer's ink, in the form of alluring advertisements, is the net that catches the credulous victims of quackery. Take away from the patent medicine swindler and the many other fakirs that hide under the cloak of medical healers and medical science, their ability to fill the advertising columns of the daily press and the weekly and monthly magazines with every imaginable variety of lie, and their business would go out of commission in less than six months. It is admitted by the quacks themselves, that 90 per cent of their earning power is represented by newspaper advertising and that fully 50 per cent of all profits go to fill the coffers of the newspaper owners.

It has been estimated by reliable authority, that there are today in the United States being sold over the counter, over 37,000 different proprietary nostrums, and only 5,000 criminal prosecutions have been reported by the Bureau of Chemistry. Out of these prosecutions only about 3,000 of these swindling frauds have been exposed, their secrecy torn away and their deviltry shown up. Let the medical profession, with the co-operation of the United States Public Health Service and the Bureau of Chemistry, start a more active campaign against this national enemy to human progress and everlasting disgrace to our civilization. Let the legislative committees of the various State Medical Associations hold annual conventions in Washington during the sessions of Congress and be on hand when bills or amendments are introduced pertaining to public health and preventive medicine and the eradication of fakirs and nostrums.



We need a few more live wires like Senator Owen of Oklahoma, to champion the cause of progressive medicine in our national legislative halls, and meet the onslaughts of the paid or bought-up opponents. It is a well known fact, that the longevity of a nation depends largely on the character of its civilization and the habits of its people. When the enemies of health, such as habit-forming drugs, nostrums, alcohol and tobacco intemperately used, illegitimacy and violation of the law of eugenics, are ignored, we cannot expect much progress in our civilization nor from a health viewpoint, saying nothing of our longevity. For ages health officers have been waging a war against cholera, tuberculosis, typhoid fever, yellow fever, plague, malaria, etc., which result from virulent germs or protozoa, but today the profession of medicine is turning its attention largely to the "evil span" of mankind, which is expressed and magnified by the mental and physical wrecks found in our hospitals, prisons, jails, reformatories and insane asylums, many of whom constitute the sad pictures of the world war. "Statistics show that over 2,500,000 feeble-minded babies are born annually in the United States, caused by heredity and habit-forming drugs."

Drugless healers and secret nostrums,  
with fair promises, delude the mind,  
And thrive on all that tortures and de-  
ceives human kind  
Void of all honor and truth, avaricious  
and rash,  
The daring, bold tribe compound their  
boasted trash;  
Bitters, syrups, suppositories, solutions or  
pills,  
Tempt the credulous, sick, poor to trust  
their lying bills,  
And many, many names of shylocks turned  
to squires,  
Aid the bold, deceptive language of these  
blushless liars.

How strange to think, in this nefarious  
trade,  
That sensible men and women are dupes  
by fakirs made!  
That creatures, nature meant to clean the  
streets,  
Have purchased lands, mansions, parks  
and seats;  
No class escapes them, from the poor  
man's pay  
The Faker and Nostrum trade, takes no  
small part away.  
Down with Osteos, Chiros, Shysters and  
drugless schemes,  
That prey upon human credulity, and then  
steal their names!

#### WHY EACH PHYSICIAN SHOULD BE A MEMBER OF HIS COUNTY SOCIETY.\*

J. O. Elrod, M. D.  
Councilor Sixth District,  
Forsyth, Ga.

In presenting this paper to you I trust it will cause increased interest in each county society in our district. We should be very proud of our district; for this year has been the best in the history of its organization. We have more counties with 100% membership than any other district in the State Association, we also have the largest percentage of eligible physicians as members of our State Association of any district in the State. The President of our State Association told us at our district meeting, held at Indian Springs, in June, that our attendance was marvelous and that the character and discussion of papers compared favorably with the State Association. All of these attainments make me very proud of our district, and I wish here to publicly thank the officers of each county society for their diligent and faithful work during this year, as well as all those who have held office during my six years of Councilorship. I am not satisfied with this splendid record, though it is the banner district of the State. I wish our State Association

\* Read at the meeting of the Sixth District Society, Macon, Ga., December 14, 1921.



could boast of having every eligible physician in its borders as a member. No less an aim is worthy of us. Since our district, during 1921 has had 89 2/7% of all its eligibles as members I am satisfied if each member of the county societies will make an effort to enlist every eligible physician in his county as a member of his county society, we can have a 100% membership in our district in 1922.

The foregoing leads us to the subject, "Why Each Physician Should Be a Member of His County Society."

First: Your membership in a county society is the first prerequisite toward becoming a member of any other Medical Society or Association. Membership in your county society automatically makes you a member of our State Association, and with this qualification you are eligible to membership in other and larger Associations, viz: Southern Medical Association, the American Medical Association, and others. Now why should we be required to be a member of our county society before being eligible to membership in other societies or associations? For only one reason and that is, that the physicians in a county know personally the habits and conduct of every other physician in his county and a Board of Censors, composed of three physicians, pass on every application for membership as to whether the applicant is eligible or not. By this means we can keep physicians who are not what they should be out of our Associations. If any physician is not what he should be, then he should not have the co-operation of his brother physicians nor the benefits of any organization of the brotherhood.

Second: The meeting together of physicians promotes fellowship and co-operation among them. As a rule they are all fine fellows and the more you know them and come in contact with them, the closer you feel toward them, for no one can practice medicine alone. These meetings also bring about an exchange of ideas that are always beneficial to each of us in our daily work.

Third: The general public has at last

gotten away from the idea that a Medical Society is a combine or union against their general welfare, but on the other hand have realized the real truth and benefits concerning them. So today when the laity learns that a physician does not belong to his County or State Medical Society, they begin to inquire why he does not and they fight shy of him. No Insurance Company wants an examiner who does not belong to his county society for they know there is something wrong if he does not.

Fourth: By being a member of your county society you are automatically a member of your State Association, which gives you good standing with other physicians of your State and the entire country. With the other privileges of the State Association, you also receive the State Association Journal, which comes to you every month. At present it is rated as one of the best in the southeastern states. By this means you can keep in touch with the entire profession of the State. The editor especially requests that each member send in all the news items possible. He is at present very anxious for several well written original articles for publication.

Fifth: By being a member of your State Association you receive the benefit of the Medical Defense Feature of the Association, which provides that the Association will defend any of its members in any damage suit, by furnishing legal counsel to defend him through the courts or by bringing about settlement out of court if possible. This feature of the Association was inaugurated April 16, 1916. Since June, 1920, fourteen damage suits, amounting to \$245,500, have been filed. Seven of these cases have been settled out of court by our attorneys, without any money consideration. The remaining seven cases are still pending, but our attorneys are confident that all of them will be settled without any money consideration. The cases cited above should be sufficient evidence to impress upon you the value of this feature of our Association, but to

make it more impressive I wish to say just here that the fourteen cases from June, 1920, to date are more than were filed from April 16, 1916 to June, 1920; a period of fifty months against a period of seventeen months. In times like these people are eager for a chance to claim damages. The above statistics show you very plainly that damage suits against physicians are very much on the increase. I believe if physicians would be more careful in their remarks in regard to their brother physicians we would have fewer damage suits. Chapter six, Section five of the Constitution and By-Laws of the Medical Association of Georgia gives a full explanation of this feature. This feature if bought from an Indemnity Company would cost you three times the amount of your dues; then from a financial point of view you can not afford not to be a member, even though you do not care for the other benefits of your organization. I wish to impress upon you at this point that to receive the last named benefit you must have your State dues in the hands of your State Secretary by February the first of each year. For this reason let me insist here, if you have not already had your December meeting, be sure to have it before the month is out, carrying out the regular program for the month. Because of the fact that we are prone to forget these things, I have written every member in the Sixth District to be sure to attend their December meeting. I have also written to the President and Secretary of each county society urging them to call this meeting. It is my purpose, after your January meetings have been held to request each Secretary to mail me a list of all who have paid dues. I will then check these against the list of physicians, who pay professional tax in your county, I will also request your Board of Censors to check off all the names of those who are not eligible for membership. In this way only can I be of any assistance to your Secretary or get the percentage of eligibles in any county, who are not members.

I have not visited the County Society meetings as much as I would like to have done. I trust I will be able to meet with each one before our State meeting, at Columbus, in May.

I want to assure each of you that I have at all times, during my six years of Councilorship, been at your command. I trust that I may always be able to be of some service to our organization, regardless of any official relationship to it. I wish to take this opportunity to thank the members of the Sixth District for their kind words and hearty co-operation during my term as Councilor.

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### TERMINATION OF THE SO-CALLED NEUROSES.

N. P. Walker, M. D., Ass't. Physician, State Sanitarium, Milledgeville, Ga.

A stock taking of our failures is not always so pleasant as it is profitable. Nevertheless, it behooves us to occasionally check up in order that we may gain a better perspective of the future. Perhaps no department of medicine affords a better opportunity for reviewing our failures than the so-called neuroses. Not only do we find failures in treatment, but also that gross errors in diagnosis are very common. Patients suffering from the neuroses usually die of other diseases, and may live for decades. Unless cured in an early stage such patients become confirmed invalids, and not infrequently become institutional cases.

It is well known that the prognosis in many of the neuroses is quite good under favorable circumstances. But such patients have notorious way of going from physician to physician, and it is probably true that the average physician knows more about the duration and results in such cases from personal rather than professional observations. The class of cases herein referred to and illustrated show the possibilities of cases that are either improperly diagnosed or are not carefully handled. They include patients that give a very clear history or else have been under personal observation.

Case 1. Mrs. L. B. received at the State



Sanitarium June 4, 1921. This patient had various delusions of persecution involving her brother-in-law and the governor. She also had many delusions relative to the idea that people had an arrangement of mirrors by which her every act could be watched. She could not take a bath or retire without being observed. At the age of sixteen she had a so-called nervous breakdown, in which she suffered from insomnia, weakness, headaches, and increased excitability. For a long time she could not lift a glass of water and was confined to bed for several years. At thirty-five she began to have hallucinations of hearing. At forty-two she began to have delusions of persecution, and at forty-four she thought that people began to watch her. This woman had been an invalid since the age of sixteen. At that age and for many years afterwards the diagnosis would have been one of the neuroses—probably neurasthenia. The patient's present condition is hopeless. One can scarcely help speculating as to whether the patient had a neurosis or dementia praecox thirty years ago—and was it a curable condition at that time? In handling the so-called neuroses are we not sometimes entertaining praecoxes unaware? The final chapter in this patient's mental condition has been written.

Case 2. Mrs. M. M. came under observation in the out-patient department. She had been an invalid for more than seventeen years. A tentative diagnosis of paresis had been made in her case, which of course carried with it a most unfavorable prognosis. When seen at a private home later she was quite stuporous, and did not recognize her relatives who were in attendance. She was carried to private hospital where she remained for about a week, and then was transferred to the State Sanitarium. Here her condition was one typical of neurasthenia. Improvement was very slow and she was in the institution for about one year. Her eyesight was quite bad and before she left glasses were fitted in order that she might keep engaged in some light occupation. This case illustrates an error in diagnosis on the other side of the ledger.

Case 3. Mrs. E. W. had been a chronic invalid more than twenty years complaining of various neurasthenic symptoms, referred largely to the stomach and genito-urinary organs. Several operations were done. This patient was finally lost sight of until it was learned that she had been sent to a private sanitarium where she committed suicide. It was learned from the physician that she had become markedly depressed for some time before death. So far as could be ascertained the patient was suffering from manic-depressive insanity at the time of suicide. Personal acquaintance with this patient for a number of years was sufficient to convince one that she did not, during that time, have any symptoms of manic-depressive.

Case 4. Mrs. N. W. seen at the out-patient department was sixty-eight years of age. At the age of twenty she had a long screaming spell, which lasted for several hours. For nearly fifty years since she has recurring attacks of screaming, and in addition she has had other neurotic symptoms too numerous to mention which include, however, weakness, insomnia, headaches, irritability. She was once confined in the State Sanitarium for about five months with but little improvement. For the past six years she has, according to her statement, been a helpless invalid and has been confined in a county home. She is exceedingly garrulous and says she never gets a chance to talk as much as she wishes in regard to her troubles. She walked briskly into the room, but soon began to show the physician that she was quite unable to shell peas or beans—a part of her duties—because it made her hand and fingers hurt. Three pints of water was as much as she could carry at one time, and she did not dare try to carry more than two plates.

Case 5. Mrs. B. Minister's wife; age forty. Admitted April 8, 1920. College graduate. Cesarean section ten years ago; goiter removed seven years ago; appendix removed three years ago. The admission was due directly to the use of drugs. Her husband stated that she had taken paregoric in quantities up to eight ounces per day. She had al-

so been taking chloroform by inhalation on the advice of a physician. She would not stay in a sanitarium in a near by city; she would make false statements concerning the use of drugs and was altogether unreliable. Some of her acts while in the Sanitarium confirmed these statements. A careful history taking revealed the fact that she had been to some extent nervous all her life, and that this condition appeared to have become worse about three years before admission. At this time she began to take paregoric for the relief of insomnia; headaches; nervousness; pains in back; heart and limbs. The above combination makes up a condition that is not very easy to treat. Either condition alone presents sufficient difficulties.

Case 6. Mrs. P. Admitted March 2, 1921. Age sixty-one. Syphilis was the assigned cause, but her blood was negative. The history stated that the patient was quite violent and that she had broken up furniture. It also stated she had been addicted to the use of chloral. At the time of admission the patient was very much confused, and thought that her former jailer and his assistant had perfected a plot wherein she was involved and that as a result she was to be done away with. She was subject to very vivid hallucinations in which it appeared that negroes were placing glass in her room and that they were also placing ropes across the room in order to trip her. This condition continued for about three weeks when her confusion and hallucinosis began to clear up. After improvement set in it was found that she had been taking some kind of drug over a considerable length of time and that this was the cause of her psychosis. It was also found that she had suffered from neurotic syndrome for some years consisting of insomnia, weakness, headaches.

Case 7. Mrs. J. A. Received May 26, 1920. Age fifty-one. Admission was due primarily to drug habit. The patient's mother, father, two brothers, and two sisters suffered from headaches. Beginning at the age of ten the patient suffered from headaches which always came on Fridays and Saturdays before the second Sunday in each month. The patient remembers this clearly because in her

community preaching was had on each second Sunday. The family always had considerable company on such days and there was much work to be done in preparation for the day. The headaches would always improve by Sunday. Her mother always told her that she did too much work and that this was the cause of her trouble. Her relatives "had no regular time to have headaches." At the age of twenty-seven the character of the headaches changed; it would begin in the head, go down the back or the process might be reversed. Her head would be drawn back. The attacks also became more frequent, and came on about once per week and at times lasted as long as four days. Her work was very much interfered with. At this age she began to have choking spells and convulsions that were typical of hysteria. Morphine was given for the relief of these attacks. With the exception of one month the use of the drug was continued until the time of admission. The amount of the drug was gradually decreased and she was soon free from its use and rapidly gained flesh and strength. Three weeks after the withdrawal of the drug she began to show symptoms of psychosis and eventually passed through a typical attack of manic-depressive insanity, from which she recovered and returned home. The psychotic attack after the withdrawal of the drug was most unusual and is not readily explained. The particularly interesting features of this case is the long duration of the neurosis, forty-one years, the consequent drug habit of twenty-four years duration followed by the psychosis mentioned.

The above cases represent a fairly constant termination of a moderate number of the so-called neuroses. Since beginning our work in the out-patient department in Macon, we have been constantly struck by the comparatively large percentage of neurotics seen. It is an open and a debatable question as to how many of these patients are potential candidates for the State Sanitarium or some other institution. Indeed, it is impossible to say that some of them are not already showing the so-called prodromal symptoms. It not infrequently happens that some of our officer was a Harvard graduate and the col-



sanitarium cases present many difficulties in the differentiation of dementia praecox from the psychoneuroses.

Among women operative interferences are quite frequent, in the neuroses. As a rule there is some temporary improvement, but permanent benefit is quite rare. The histories show that a large percentage have had operations.

Drug addiction is another frequent complication or sequence. It is quite easy to relieve insomnia and headaches by the use of morphine. In a letter in reference to case one, her physician remarks that a quarter grain of morphine has a very happy effect in relieving her nervousness.

In the above paper we have purposely avoided differentiation of neuroses—neurasthenia, psychasthenia and hysteria, for the reason that it is not always possible to do so. We have also refrained from entering into a discussion of etiology, since it plays no part in the object of this paper.

#### THE NEED OF A PHYSICIAN.\*

E. C. Davis, M. D., Atlanta, Ga.

In making your selection of a speaker for this occasion, I have wondered if you were not actuated by that peculiar influence which causes one to summon the physician when there is illness or serious injury in our family. I fully realize that the marvelous growth of this much revered institution would tend to show that there was reasonable health within her body, but her impoverished condition financially causes me to marvel as to how she has managed to accomplish the progress which is obvious to any who take the time to investigate, and selecting me to appear before you on this date seems a very peculiar coincidence, for this date has exercised a very profound influence over the destinies of my life and if I may be allowed will detail a few striking occurrences happening upon it.

In early manhood while encamped in Florida during the Spanish-American war was ordered to take the transports for Cuba, only to have this later rescinded.

On this same date just twenty-two years

ago, the happiest event in my life was consummated, for on this date no man was ever allowed to claim a fairer and more devoted wife than I, and today we celebrate the twenty-second anniversary of our happy married life.

June 14, 1918 found Base Hospital No. 43 (Emory Unit) sailing for France upon the magnificent steamer, the *Olympic*, with the hostile submarines lurking around the New England coasts seeking to sink all American transports.

And now I am back at our dear old Alma Mater to witness the graduation of my oldest son and to impose upon this charitable audience the ebullitions of an earnest alumnus but one not blessed with the gift of oratory.

Before taking up for consideration the subject selected for consideration today, I wish to detail a little incident which profoundly impressed me during the activities of our late world's war. Personally there came over me just a little feeling of disappointment that our great, loyal and patriotic Alma Mater was not represented as an institution. Although she contributed liberally of her sons to the great world's war, we looked rather longingly for a hospital, at least, bearing her honored name, but this seemed a vain hope. But she made up for this in the vast number of her sons who so valiantly upheld the honor of her revered name, both upon the fields of battle, amid the rattle of the machine guns, with their terrible toll of life, and upon the sea, land and air. The University of Georgia has planted undying fame in the great garden of patriotic honor, and she will always point with maternal pride, tinged with sadness, to her beloved sons whose lives were so nobly given to protect us from the heinous domination and iniquitous taxation that the imperialistic Hun so blatantly anticipated imposing upon our fair land. This is a digression. I had intended to call attention to a little incident occurring in a small French city where the officers were gathered together at a dinner to do homage to the commanding officer who had been ordered to the front to take an active part in the American Armies' gas attacking branch of our service. The

\* Alumni Oration, University of Georgia Commencement, June, 1921.

lege yell of Harvard was given with great gusto; a number of graduates of Yale, Princeton and other eastern colleges rendered loudly the yells of their respective colleges; a little group of the University of Georgia Alumni assembled at a table caught the spirit and there resounded the "Rah, Rah, Ray" of Georgia, even louder and more vociferously than any other, breaking the quiet of this beautiful little French city and causing all present to know that the University of Georgia was over, and ready to render her service and to send her sons to the front if needed. This was but a trivial incident in the summer of 1918 when our armies were engaged in the fiercest part of this memorable conflict.

But I had not intended to speak of war today but of peace and with this peace, a preparation for future wars, for as sure as the sun rises each morn from his unending vigil in the east so shall wars recur with unshaking certainty. Men must fight to protect themselves and their own, and to preserve self-respect, and the same applies to countries as well as men. This war taught us that higher education was the great essential in modern wars, the demand for scientifically trained men in all departments of service and the arts were never so great. The highly developed man mentally, was the one to whom we turned to get the best results and ultimately it was through them that the war was brought to a fortunate and victorious consummation. I would not in this disparage in any sense the modest and oftentimes unknown combatant who bore the brunt of the conflict and endured the discomforts of exposure, suffering and separation from home and loved ones, for upon these men the burdens of sacrifices fell and the glorious recompense of a victory won is not emblazoned in block letters connected with them, but given to some general who was most likely miles in the rear. Enough of this, for I feel that we are assembled today facing a serious crisis in the very life of our beloved Alma Mater.

Now I would like to state in the beginning that I have no political aspirations to gratify, as there is no office, within the gift of our

people that I desire, hence I am free to speak my thoughts without reservation and with a frankness that may not be altogether pleasing to some. We are facing a financial crisis in connection with this institution with a parsimonious appropriation from the state for its maintenance and with the great increase in the cost of operating any plant and especially in the living expense of those engaged in the conduct of its affairs and with little or no money available for this purpose, with hundreds of our finest young men and women begging to be admitted to this institution for the improvement of their minds and the development of their bodies, and no means provided for more than a limited number, and having to turn away scores each year. Is it not time for us to summon a doctor and endeavor to diagnose the cause of this serious malady and endeavor to apply the appropriate treatment before the situation becomes too serious for remedies or beyond the skill of even a skilled surgeon?

The crying need of the present day is teachers, those who can first acquire knowledge sufficient to fill such places, with the ability and opportunity to impart this knowledge. We are oftentimes reminded that our beautiful southland, the theme for poems and romance, with resources more diversified than any section, harbors the purest type of the Anglo-Saxon race, and is less contaminated than any other by foreign intermingling. This country will yet look to us for the highest type of men for responsible positions in time of need, and unless we take care of our young men and women, they must go to other sections for higher education. Shall we sit quietly by and witness such results when we have the remedy for relieving this malady easily within our grasp? History shows that the waning power of several of the greatest of all nations was the result of a failure to properly appreciate the dangers of disease, or the abuse of natural laws, which scientific men could have warned against. Some great writer claims that malaria was the direct cause of the fall of the Roman Empire, and yet the following poem translated from the Indian Lyrics, written before the birth of Christ gives an accurate



description of malaria and its propagation by the mosquito:

### MALARIA

He lurks among the reeds, beside the marsh,  
Red oleanders twisted in his hair,  
His eyes are haggard and His lips are harsh,  
Upon His breast the bones show gaunt and bare.

The green and stagnant waters lick his feet,  
And from their filmy iridescent scum  
Clouds of mosquitoes, gauzy in the heat,  
Rise with his gifts: Death and Delirium.

His messengers: they bear the deadly taint  
On spangled wings aloft and far away,  
Making thin music, strident and yet faint,  
From golden eve to silver break of day.

The baffled sleeper hears th' incessant whine  
Through his tormented dreams, and finds no rest.  
The thirsty insects use his blood for wine,  
Probe his blue veins and pasture on his breast.

While far away He in the marshes lies,  
An endless hunger burning in his eyes,  
Staining the stagnant water with his breath,  
A famine unassuaged, whose food is death.

He hides among the ghostly mists that float  
Over the water, weird and white and chill,  
And peasants, passing in their laden boat,  
Shiver and feel a sense of coming ill.

A thousand burn and die; He takes no heed,  
Their bones unburied, strewn upon the plain,  
Only increase the frenzy of His greed  
To add more victims to th' already slain.

He loves the haggard frame, the shattered mind,  
Gloats with delight upon the blazing eye,  
Yet, in one thing His cruelty is kind,  
He sends them lovely dreams before they die.

Dreams that bestow on them their heart's desire,  
Visions that find them mad, and leave them blest,  
To sink, forgetful of the fever's fire,  
Softly, as in a lover's arm to rest.

(Collected and translated from Indian Lyrics  
by Laurence Hope.)

If this knowledge could have been made known and impressed upon the people, it may have been possible to have perpetuated the wonderful power of the Roman Empire. Malaria and hookworm have been the greatest barriers to the development of our own resources and has conduced to the poor development of children to a greater extent than probably any other factors. This now being understood we need only to have put into practical application the means of pre-

venting these diseases in order that we too may occupy the high position in the world's influence to which we are worthily entitled.

Another factor to be reckoned with is the so-called social diseases. An enormous percentage of the blindness in the world is directly ascribable to infections communicated to the child at birth. Many deaths before birth, types of paralysis, nervous and mental diseases are directly attributable to syphilitic infections, but why enlarge upon this, but to impress the public with the importance of preventing these diseases and their entire eradication from our midst. The American Army by strict rules, was more free from these diseases than any army in France. Again our boys show lack of development as was made manifest by the report on the examination of the first million men examined for the military service. Out of 20,936 men examined in Georgia, there were 13,533 accepted as qualified without defects, (64.64%); 5,970 accepted as qualified with defects, (28.52%); 4 accepted with defect for operation; 36 accepted for limited service, (.17%); and 1,393 rejected, (6.65%). What must be done to overcome these conditions and to place our state and people upon the loftiest plane and develop our almost unlimited resources? Show me a state with more diversified resources than Georgia or a more salubrious climate, a state whose hills are laden with minerals and ores, whose fields but need to be tilled to burst out with the gladsome exultation of fertility and abundance. These results to the highest degree may be obtained by education and that secured from our Universities. Massachusetts spends more on higher education than most of our southern states combined, and she takes our own products, manufactures them and sends them back to sell us for a tremendous profit.

A few years ago at a meeting held in the buildings of the University of Minnesota, and while walking over a section of the city adjoining the campus, I noticed the tearing down of beautiful blocks of buildings and asked its meaning and was told that the University needed the land and it had been condemned and turned over to them.

At a recent meeting held in one of our large cities which had long struggled to build a great University, a group of financial magnates met a prominent educator and asked him to explain to them how this end could be attained, and he plainly told them that they could never expect to have a real great University until they placed at its disposal thirty million dollars, and he knew they were too stingy and close-fisted to do this. He was then asked if he would return within a few days for another conference, and his answer was: "Please do not waste my time and yours, as you love money too well and will not spend it for such purposes, but if you are serious let me know." Within a few days he returned, the money was placed at his disposal and he was induced to become the head of the institution on a twenty-five thousand dollars per year salary. A somewhat similar spirit is essential to accomplish desirable results in Georgia and while we may not raise thirty millions, we can raise several millions and place our institution in the position which other large Universities occupy. If the Red Cross could raise its enormous sums for our boys, if our churches can raise their millions, then if the right efforts are put forth and the people made to realize the importance of higher education, they will respond liberally. Wellington stated that the battle of Waterloo was won on the Rugby fields. Base ball, foot-ball and other athletic sports will yet do more to fit our young men for military service than any other known means available. Let not our over-zealous advocates of disarmament carry us too far in this direction and lead to the complete emasculation of our nation and place us at the mercy of the envious nations who now covet our resources and but await a suitable time when, should we become weak and unprotected, they could take advantage of our unpreparedness. Let's not wage a war of aggression, but on the other hand let's always keep in such condition that we may protect ourselves from an invading enemy. Now to do this we must educate our youth and give them the best that can be afforded, stimulate research, equip laboratories and athletic fields and pay our teachers salaries

that they can live on and be contented to work and when they reach the proper age retire them upon a competency. This I feel sure would be the cry from our boys who gave their lives, either in France or in camps at home, could we but hear them.

It matters not what politicians say or deluded individuals claim, wars will come again as long as men live and let's be prepared to protect our fair land when the emergency arises.

### HYSTERICAL AMBLYOPIA.\*

A. S. M. Coleman, M. D., Douglas, Ga.

Gentlemen:

I want to report a case that was of much interest to me and which I think is rarely seen in a person so young as my patient.

The child is one who has been allowed her own way and has been thoroughly spoiled.

I first saw her in the fall of 1917, when she was brought to the office by her mother who said that she was not doing well at school, and that the teacher thought she needed glasses. Under atropine, I found that she accepted in each eye plus 3.50 sp., combined with 50 cyl. at 135. She wore these glasses constantly. Her eyes were examined again in July 1918, and no change was made in the glasses. She was twelve years old at this time, and except for an attack of measles in 1916, her history was negative.

On my return to Douglas in August, 1919, I was asked to see her in consultation. A thorough examination was made of her eyes, nose and throat. The fundus was normal, media and cornea were clear, and pupils gave equal reaction to light and accommodation. The refraction was the same as when last made. Her tonsils were slightly diseased.

The following history relating to the present trouble was obtained.

While playing with several children on a neighboring farm, the patient was chased and badly frightened by one of the children who had wrapped himself in a sheet. When she got home she was hysterical and apparently exhausted, and went immediately to bed. The next morning she complained that

\* Read before the Eleventh District Medical Society, Brunswick, Ga., June 23rd, 1921.



she could not see, and that the light hurt her eyes. When she came to the office both eyes were shaded by a green shade, and she was led by her mother. The above reported examination was made, and she was put under observation with instructions to report at the office in two days. When she returned, conditions were found to be the same. She was unable to count fingers at several feet, and complained that the light hurt her eyes. She paid very little attention to the examination, and we had trouble in persuading her to follow directions. I ordered an atropine sol., and had her return in two days. Examination by retinoscopy showed the same refraction as before. Putting lens in front of her eyes made no difference in the vision.

The mother was told that nothing could be found beyond the slight tonsil condition, and it was suggested that she encourage the child to take up customary duties about the house, and that the patient be persuaded to go into the light without the green shade. It was also suggested that the tonsils be removed. This apparently pleased the patient, who had been complaining of sore throat ever since her throat had been examined.

The girl was brought back to the office in a week, and no change could be noted, except an increased indifference, a marked inability to look at the person to whom she happened to speak, and a constant rearranging of her clothing and personal belongings. The mother said she had seen her pick a pin off the floor that morning.

The mother wanted another opinion, and I sent the girl to Dr. Smith in Valdosta, who confirmed the diagnosis of hysterical amblyopia, and suggested about the same line of treatment.

Up to this time the patient had not been told what we thought. For the first few days after I talked to her, she sulked, and was unmanageable, but with a gradual increase of household duties, and more intercourse with other children, she rapidly became normal. She entered school in November, and has passed her grade, with no further complaint, and no apparent return of the trouble. Vision at the last examination

was the same as when glasses were first fitted.

Dr. Lancaster of Boston cites a case that seems to me to explain in a way these cases.

"A soldier who has several weeks' service at the front, has seen wounds, suffering and death, has suffered cold or heat, hunger and lack of sleep so that he is pretty thoroughly fatigued, is finally in a group that is hit by a high explosive, which kills and wounds a number of his comrades. He himself does not receive a scratch, but is struck blind. On examination his eyes show absolutely nothing. It is hardly far fetched to say that he has suffered a most severe wound. He has seen a sight which was literally more than he could stand. His consciousness has had a wound inflicted on it of staggering severity. His eyes continue to see, but as a defense reaction the sensation is cut off from his consciousness and he had not the slightest idea what the explanation of his blindness is."

### TRANSPLANTATION FLAP REPAIR OF LOWER EYELID, FOLLOWING REMOVAL OF EPITHELIOMA.\*

B. H. Minchew, M. D.,  
Waycross, Ga.

The case illustrated in this paper does not vary from others of like variety. It may be claimed, however, that it does vary in the usual course of such malignant growths, in that a diagnosis was obtained, and the operation performed within ten days from the time he presented himself at my office.

It may be interesting to state that this man is 76 years of age and works from 12 to 15 hours a day as a hotel clerk. His father and his father's mother were each 90 years of age at the time of their death. His mother was 80 years old when she died. No member of his family, so far as his knowledge goes, ever had a cancerous growth.

This patient came to my office about the first of June, 1921, complaining of burning and itching of lower right lid, and that recently two small tumors had pre-

\* Read before the Eleventh District Medical Society, Valdosta, Ga., Nov. 22, 1921.







fact that a jury in Murray superior court had previously acquitted him on an indictment charging him with practicing without a license. He contended that the offense with which the state board charged him in its petition was a criminal offense, and therefore outside of the jurisdiction of a court of equity. He claimed that the sole and exclusive remedy of the state board consisted in criminal prosecution, and that the board was without authority to institute equitable proceedings.

The case came to the supreme court, and in a decision rendered Thursday, the court holds in support of Dr. Bentley's contention that the authority of the board in such a case is confined to a criminal prosecution, and that the board has no authority under the acts creating it to bring a proceeding in equity.

### AGAIN, NO SHORTAGE OF PHYSICIANS.

On another page we publish a report<sup>1</sup> on the scarcity of physicians in the rural districts of Pennsylvania. It shows that there is an overlarge supply of physicians in the cities of that state which more than offsets the lack of physicians in rural districts. This further corroborates the statements repeatedly made by The Journal, that, although physicians are scarce in rural communities, there is no scarcity of physicians in the country as a whole; the conditions referred to are found not only in Pennsylvania but in all the other states as well. The latest figures<sup>2</sup> show that Pennsylvania is well supplied with physicians as compared with the rest of the country. It has one physician to every 768 people, while in the country as a whole there is one to every 726 people. This report makes no reference to the real reason why physicians are not in rural communities. In a conference in Kentucky held recently between the House of Delegates of the Kentucky State Medical Association and members of the legislature,

this problem was the subject of a practical discussion. There it was clearly demonstrated that the lack of doctors in rural communities was not due to a general scarcity of physicians, nor to higher educational requirements, but to economic conditions—to the fact that physicians will not locate in districts where they cannot secure a reasonable income and where living conditions are poor. The saving of one or two years of time in intermediate and secondary education, as recommended in the Pennsylvania report, is indeed desirable; but that reform would have no effect whatever in supplying doctors for rural communities. It is quite clear that the only way by which physicians can be induced to locate in rural districts is to make those districts more attractive places in which to live, from the professional, social and economic points of view.—*Jour. A. M. A.*, Feb. 11, 1922.

### VITAL STATISTICS IN GEORGIA.

Under the dome of the Capitol, protected by walls of solid masonry and guarded by a steel door, are the records of more than 170,000 citizens of Georgia. In this vault, side by side with the birth records, are dead records of more than 90,000 individuals who died since the Bureau of Vital Statistics was organized in 1919, and many are the tragedies to be found in these records, while a few comedies are also recorded there.

Many records are not complete. The record of the little family on the way to an adjoining state whom fate led to a hotel which was destroyed by fire cannot be completed for none was left to furnish the necessary information. The death record of the recluse of a noble family, known only as John in the community, caused much trouble for no one knew his parentage or birthplace and his relatives were put to much expense in completing the record.

The ultimate aim and final purpose of all public health work is the limitation of preventable diseases. Complete death records are necessary to the checking of such

1. Report of the Committee on Medical Education of the Philadelphia County Medical Society, p. 453.

2. See table on Proportion of Physicians to Population, *J. A. M. A.* 76:1248 (April 30) 1921.



work for without such records properly tabulated, it is impossible to tell whether the number of such deaths are on the decline or the increase and likewise whether the appropriation for such work has been judiciously expended or not.

The solution of many social problems now confronting the State may be found in these records. The limitation of the family to one or two children among the better class with an average of six children among the uneducated negro race means that the State must double her educational fund or that the voter will, in the next generation, be more easily controlled by unscrupulous politicians. With the emigration of the negro to the northern states, the foreign born element becomes a problem and a close and accurate record of such must be kept in order to protect the native born citizen. Rather than relax the records of such immigrants as to name, age, birthplace or parentage, it would be better to take the finger prints of each child born of foreign parentage in Georgia so that the race of anarchists and bolsheviks might be identified regardless of such changes they might make.

In the past the importance of keeping the birth record of a child has been compared by unthinking people with the keeping of the pedigree of standard bred hogs and dogs. The comparison is not fair, especially when applied to a human being, for none is to be compared in any way with hogs and dogs. With the modern legislation to protect, develop and educate the child at the expense of the tax payer, the tax payer has the right to demand a complete record of all children so that he may not be imposed on by unscrupulous parents. The State has the right to a complete record of all citizens since it places certain age qualifications as to the enforcement of its laws. And certainly the child is entitled to a complete and perpetual record of its birth for in the absence of its parents many essential facts as to its existence cannot be established in any other way than by an authenticated birth record.

### Second District Medical Society.

Second District Medical Society held its regular annual meeting at Tifton, Georgia, February 10, 1922. The meeting was a splendid success. There was an unusually large attendance, practically all being present at the opening of the session. Although the program was somewhat shorter than usual there was very free discussion of all papers presented showing an increasing spirit of co-operation and interest in the Second District Society. Dr. B. H. Minchew, of Waycross; Drs. S. R. Roberts and J. L. Campbell, of Atlanta, were present and added much to the success of the meeting. The following program was rendered. Session began at ten a. m.

Invocation.....Rev. C. W. Durden, Tifton  
Address of Welcome on the Part of the City

.....Hon. H. H. Tift, Tifton  
Address of Welcome on the Part of the Tift  
Co. Medical Society.....Dr. W. T. Smith, Tifton

EYE, EAR, NOSE AND THROAT: "Mastoiditis, Treatment, Operation, Etc.".....

.....Dr. H. M. Stuart, Moultrie  
Discussions by Drs. E. F. Sapp, I. W. Irvin,  
Albany; Dr. H. M. Moore, Thomasville; Dr.  
P. M. Lewis, Bainbridge; Dr. W. T. Smith,  
Tifton.

PEDIATRICS: "Management of Feeding  
Cases During the First Year".....

.....Dr. N. L. Spengler, Donalsonville  
Discussions by Dr. L. A. Baker, Tifton; Dr.  
N. E. Benson, Albany.

OBSTETRICS: "Common Sense in the Practice of Obstetrics".....Dr. N. Peterson, Tifton  
Discussions by Dr. C. K. Sharp, Arlington;  
Dr. Tom Chason, Donalsonville.

SURGERY: "The Progress of Surgery in South Georgia".....Dr. A. D. Little, Thomasville  
Discussions by Dr. Everett Daniel, Moultrie;  
Dr. W. S. Cook, Albany; Dr. C. K. Wall,  
Thomasville.

MEDICINE: "Cardio-Vascular Sclerosis".....

.....Dr. W. W. Jarrell, Thomasville  
Discussions by Dr. Stewart Roberts, Atlanta;  
Dr. J. B. Warnell, Cairo; Dr. R. J. Pearson,  
Albany.

CANCER CONTROL: Address by Dr. J. L. Campbell, Chairman Cancer Control for Georgia, Atlanta, Ga.

The following officers were elected:

President, Dr. L. A. Baker, Tifton, Ga.

Vice-President, Dr. W. W. Jarrell, Thomasville, Ga.

Second Vice-President, Dr. C. K. Sharp, Arlington, Ga.

Secretary-Treasurer, Dr. A. W. Wood.

The next meeting will be held in August, 1922.

### ANNUAL MEETING UPSON MEDICAL SOCIETY.

One of the most brilliant social affairs of the season and one that will linger in the minds of those present for many days, was the banquet on Wednesday evening at the Pasley hotel, given by the Upson County Medical Association in compliment to their wives and visiting physicians.

At 7:30 o'clock the guests assembled in the lobby, where hearty fraternal hand clasps were exchanged, after which the doctors retired to their room to attend to the affairs of the association.

Splendidly prepared papers were read and intelligently discussed by local and visiting physicians.

The following papers were read:

1. "Nephritis"—Dr. M. M. Head, Zebulon, Ga. Discussion opened by Drs. A. H. Black and E. W. Carter.

2. "The Chronic Sacro-Iliac Joint"—Dr. J. D. Blackburn, Atlanta, Ga. Discussion opened by Drs. J. M. McKenzie and C. A. Harris.

3. "Gonorrhea in the Female"—Dr. W. R. Holmes, Atlanta, Ga. Discussion opened by Drs. K. S. Williams and R. L. Carter.

4. "Diseases of the Prostate"—Dr. R. L. Carter, Thomaston, Ga. Discussion opened by Drs. H. A. Barron, Wilson and Johnson.

### MINUTES OF MUSCOGEE COUNTY MEDICAL SOCIETY FOR JANUARY.

The regular monthly meeting of the Muscogee County Medical Society was called to order January 5, at 8:30 P. M. by the newly elected president, Dr. J. M. Anderson.

Two applications for membership: Dr. J. P. Norris and Dr. Wm. Baird, were read

and referred to board of censors. Regular business was dispensed with, due to the fact that we had with us by invitation Drs. E. C. Thrash and A. H. Bunce, of the State Association, and Mr. Sellers, of the laboratory of State Board of Health.

Mr. Sellers was first introduced and read a most interesting paper on diphtheria carriers from the laboratory standpoint.

Since the meeting was primarily called for the discussion of venereal disease and expansion of the Medical Society, Dr. Jas. A. Thrash, of the City Board of Health, read to the society his recommendations to the city commissioners which contained a short resume of past work and suggestions for the future. This report was commented on at great length later on in the meeting.

Dr. E. C. Thrash was then introduced and in his own way he made the talk of the evening. His principal discussion concerned the desire for future growth of the association throughout the state, his hopes for the coming state meeting held here in Columbus in May; Dr. Thrash then talked at great length on the various "cults" that are invading the state.

Several medical officers from Camp Benning made short talks, including Col. Hansell, Majors Moulton and Parsons, Captain Vanderbogen and also Chaplain Futch.

Every man present went away feeling better toward his brother practitioner and determined to make his society a hundred per cent society before the convention.

W. P. JORDAN, Sec.

### Bibb County Medical Society.

Bibb County Medical Society reports following officers for 1922:

President—Dr. J. P. Holmes, Macon, Ga.

Vice-President—Dr. W. E. Mobley, Macon, Ga.

Secretary-Treasurer—Dr. O. L. Spivey, Macon, Ga.

Delegates—Drs. G. T. Miller and O. H. Weaver.



**Brooks County Medical Society.**

Brooks County Medical Society reports following officers for 1922:

President—Dr. E. L. Jelks, Quitman, Ga.

Secretary-Treasurer—Dr. A. J. Smith, Quitman, Ga.

**Troup County Medical Society.**

Troup County Medical Society reports following officers for year 1922:

President—Dr. W. H. Clarke, LaGrange, Ga.

Vice-President—Dr. R. S. O'Neal, LaGrange, Ga.

Secretary-Treasurer—Dr. Enoch Callaway, LaGrange, Ga.

Delegates—Drs. H. R. Slack and D. E. Morgan.

Board of Censors—Drs. H. R. Slack, W. H. Hadaway and H. H. Hammett.

**Irwin County Medical Society.**

Irwin County Medical Society reports following officers for year 1922:

President—Dr. H. P. Lyons, Mystic, Ga.

Vice-President—Dr. R. F. McLeod, Ocilla, Ga.

Secretary-Treasurer—Dr. L. B. Whidson, Ocilla, Ga.

**Hart County Medical Society.**

Hart County Medical Society reports following officers for year 1922:

President—Dr. W. E. McCurry, Hartwell, Ga.

Secretary - Treasurer — Dr. Geo. S. Clarke, Hartwell, Ga.

Delegate—Dr. G. T. Harper.

Board of Censors—Drs. Thos. R. Gaines, F. H. Sanders and J. C. Jenkins.

**Walton County Medical Society.**

Walton County Medical Society reports following officers for year 1922:

President—Dr. H. L. Upshaw, Social Circle, Ga.

Vice-President—Dr. J. B. H. Day, Social Circle, Ga.

Secretary-Treasurer—Dr. J. K. McClintic, Monroe, Ga.

Delegates—Drs. P. T. Reynolds, G. R. Wells.

Board of Censors—Drs. O. N. Pendergrass, W. K. Swann and T. R. Aycock.

**Whitfield County Medical Society.**

Whitfield County Medical Society reports following officers for year 1922:

President—Dr. H. L. Erwin, Dalton, Ga.

Vice-President—Dr. H. J. Ault, Dalton, Ga.

Secretary-Treasurer—Dr. B. L. Kennedy, Dalton, Ga.

**Coweta County Medical Society.**

Coweta County Medical Society reports following officers for year 1922:

President—Dr. J. B. Peniston, Newnan, Ga.

Secretary-Treasurer—Dr. M. H. Farmer, Newnan, Ga.

**Lowndes County Medical Society.**

Lowndes County Medical Society reports following officers for year 1922:

President—Dr. J. M. Smith, Valdosta, Ga.

Vice-President—Dr. G. T. Glazier, Valdosta, Ga.

Secretary-Treasurer—Dr. T. H. Smith, Valdosta, Ga.

Delegates—Drs. W. D. Freeman, P. C. Quarterman.

Board of Censors—Drs. Frank Bird, A. Griffin and E. P. Quillian.

**Taliaferro County Medical Society.**

Taliaferro County Medical Society reports following officers for year 1922:

President—Dr. A. H. Beazley, Crawfordville, Ga.

Vice-President—Dr. O. F. Portwood, Crawfordville, Ga.

Secretary - Treasurer — Dr. Jno. A. Rhodes, Crawfordville, Ga.

**Warren County Medical Society.**

Warren County Medical Society reports following officers for year 1922:

President—Dr. F. B. Ricketson, Warrenton, Ga.

Vice-President—Dr. F. L. Ware, Warrenton, Ga.

Secretary-Treasurer—Dr. A. W. Davis, Warrenton, Ga.

Delegates—Drs. G. R. Maner and H. L. Earl.

Board of Censors—Drs. F. L. Ware and A. W. Davis.

#### Turner County Medical Society.

Turner County Medical Society reports following officers for year 1922:

President—Dr. J. T. Moore, Sycamore, Ga.

Vice-President—Dr. D. P. Luke, Ashburn, Ga.

Secretary-Treasurer—Dr. W. A. Harrison, Sycamore, Ga.

Board of Censors—Drs. J. H. Baxter, W. L. Story and F. W. Rogers.

#### Butts County Medical Society.

Butts County Medical Society reports following officers for year 1922:

President—Dr. A. F. White, Flovilla, Ga.

Vice-President—Dr. B. F. Akin, Jenkinsburg, Ga.

Secretary-Treasurer—Dr. J. L. Byron, Jackson, Ga.

#### Decatur-Seminole County Medical Society.

Decatur-Seminole County Medical Society reports following officers for year 1922:

President—Dr. Gordon Chason, Bainbridge, Ga.

Vice-President—Dr. J. I. Spooner, Donalsonville, Ga.

Secretary-Treasurer—Dr. P. M. Lewis, Bainbridge, Ga.

Delegate—Dr. R. F. Wheat.

Board of Censors—Drs. W. L. Wilkerson, L. W. Willis and E. S. Davis.

#### Bartow County Medical Society.

Bartow County Medical Society reorganized January 27th, 1922. They hope to make this year the best in the history

of their Society. The following are the officers elected:

President—Dr. G. W. Battle, Cassville, Ga.

Vice-President—Dr. R. E. Wilson, Cartersville, Ga.

Secretary-Treasurer—Dr. Howard E. Felton, Cartersville, Ga.

#### Dooly County Medical Society.

Dooly County Medical Society reports following officers for year 1922:

President—Dr. R. H. Pate, Unadilla, Ga.

Vice-President—Dr. J. L. Lee, Pinehurst, Ga.

Secretary-Treasurer—Dr. L. H. Bishop, Unadilla, Ga.

Delegates—Drs. R. H. Pate and J. L. Lee.

Board of Censors—Drs. H. A. Moblet and M. W. Dykes.

#### LaFayette County Medical Society.

LaFayette County Medical Society reports following officers for year 1922:

President—Dr. W. E. Brown, LaFayette, Ga.

Vice-President—Dr. R. M. Coulter, LaFayette, Ga.

Secretary-Treasurer—Dr. D. W. Hammond, LaFayette, Ga.

Delegate—Dr. J. H. Hammond.

#### Worth County Medical Society.

Worth County Medical Society reports following officers for year 1922:

President—Dr. J. L. Tracey, Sylvester, Ga.

Vice-President—Dr. W. J. Hall, Oakfield, Ga.

Secretary-Treasurer—Dr. W. C. Tipton, Sylvester, Ga.

Delegates—Drs. W. C. Tipton, H. S. McCoy.

Board of Censors—Drs. H. S. McCoy, E. D. Ford and J. C. Deariso.

#### Johnson County Medical Society.

Johnson County Medical Society reports following officers for year 1922:



President—Dr. T. L. Harris, Wrightsville, Ga.

Vice-President—Dr. S. M. Johnson, Wrightsville, Ga.

Secretary-Treasurer—Dr. R. E. Brinson, Wrightsville, Ga.

Board of Censors—Drs. D. C. Harrison and J. A. Meeks.

#### Henry County Medical Society.

Henry County Medical Society reports following officers for year 1922:

President—Dr. H. C. Ellis, McDonough, Ga.

Secretary-Treasurer—Dr. W. A. Williams, McDonough, Ga.

#### Crips County Medical Society.

Crisp County Medical Society reports following officers for year 1922:

President—Dr. M. B. Smith, Cordele, Ga.

Vice-President—Dr. G. M. D. Hunt, Cordele, Ga.

Secretary-Treasurer—Dr. R. L. Williams, Cordele, Ga.

Delegates—Drs. A. J. Whelchel and Ford Ware.

Board of Censors—Drs. S. T. Williams, J. A. Ward and W. E. Edwards.

#### Fulton County Medical Society.

Fulton County Medical Society reports following officers for year 1922:

President—Dr. Rufus T. Dorsey, Atlanta, Ga.

Vice-President—Dr. H. R. Donaldson, Atlanta, Ga.

Secretary-Treasurer—Dr. Grady E. Clay, Atlanta, Ga.

Board of Censors—Drs. J. R. Barfield, R. R. Daly and W. E. Person.

#### Ocmulgee County Medical Society.

Ocmulgee County Medical Society reports following officers for year 1922:

President—Dr. J. H. Hendrix, Hawkinsville, Ga.

Secretary-Treasurer—Dr. W. H. Pirkle, Cochran, Ga.

#### Morgan County Medical Society.

Morgan County Medical Society reports following officers for year 1922:

President—Dr. A. K. Bell, Madison, Ga.

Vice-President—Dr. J. M. Prior, Apalachee, Ga.

Secretary-Treasurer—Dr. J. H. Nicholson, Madison, Ga.

#### Meriwether County Medical Society.

Meriwether County Medical Society reports following officers for year 1922:

President—Dr. J. A. Johnson, Manchester, Ga.

Vice-President—Dr. J. L. Dixon, Woodbury, Ga.

Secretary-Treasurer—Dr. Frank Norman, Greenville, Ga.

#### Gordon County Medical Society.

Gordon County Medical Society reports following officers for year 1922:

President—Dr. J. M. Erwin, Calhoun, Ga.

Vice-President—Dr. W. R. Richards, Calhoun, Ga.

Secretary-Treasurer—Dr. Z. V. Johnston, Calhoun, Ga.

Delegates—Drs. Z. V. Johnston and W. R. Richards.

#### STAFF MEETING DAVIS-FISCHER SANATORIUM.

On Monday night, January the 9th, the Medical Staff of the Davis-Fischer Sanatorium was given a dinner at the Georgian Terrace Hotel by Dr. L. C. Fischer. In addition to the Regular and Associate Staff there were a number of invited guests representing the profession in Atlanta. It being the date for the regular monthly meeting, after the dinner Dr. E. C. Davis, the President, called the staff to order and the following program was carried out:

1. The Treatment of Epilepsy—Dr. Lewis M. Gaines.

Discussion by: Drs. C. E. Dowman, Geo. M. Niles and N. M. Owensby.

2. Sub-Phrenic Abscess—Dr. L. W. Grove.

Discussion by: Drs. W. A. Selman,  
W. P. Nicolson, C. W. Roberts and  
E. C. Thrash

After the regular program interesting talks on the development and progress of the practice of medicine and the hospitals in Atlanta were given by Drs. W. P. Nicolson, J. G. Earnest, W. C. Jarnigan, and J. C. Avery. Drs. Davis and Fischer expressed their appreciation of the co-operation of the profession in making the success of the Davis-Fischer Sanatorium assured and in making the new Annex a reality for the benefit of the profession and laity.

In conclusion a rising vote of thanks was given Dr. Fischer for the very enjoyable dinner.

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### THE PIEDMONT SANATORIUM.

Announcement has been made of the early opening of the new addition to the Piedmont Sanatorium. The Sanatorium occupies one-half block facing on Capitol Avenue, so that at all times it will be free from the noises and dust incident to the industrial section of the city. The new medical building of five stories is of fire-proof construction. This contains private rooms and wards for patients, laboratories, complete x-ray department, four new operating rooms and plaster room. The new sterilizing rooms will contain two complete batteries of sterilizers and four instrument sterilizers—all swing from steel beams placed in the ceiling, thus eliminating all dust and trash which accumulates around the old fashioned stands for sterilizing equipment. A special lighting system has been devised for the operating rooms which affords the greatest convenience for doing accurate and scientific work.

For a number of years the Piedmont Sanatorium has provided special facilities and a trained personnel for the proper preparation of correct diets so necessary in the treatment of diseases of metabolism. These facilities have been enlarged and improved in every manner possible. The department of Hydrotherapy is com-

pletely equipped for giving the most scientific treatment to patients requiring this form of therapy.

In addition to the main building there is a special utility building which will contain the refrigerating plant, laundry and kitchen with all modern equipment.

All departments of the hospital are equipped for accurate and high spirited service. It is the wish of the directors, managers and employees of the hospital that every patient who leaves its doors will go away feeling that in so far as is possible the condition with which he happens to be suffering has received conscientious and accurate attention. The atmosphere will not be cold. It will be so conducted that it will be as near like a home as an institution can be. Great stress is laid on kind and efficient nursing and the hospital is so organized that people suffering from diseases of metabolism, nephritis or diabetes will be given courses of instruction so that they may find themselves, after leaving the hospital, able to manage the treatment of their own case and that they may feel that they have not been a "case" but a human being who has been so cordially treated that their stay in the hospital will not be an unpleasant thing to look back on.

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### MRS. MARTHA S. BATTEY, NOTED SURGEON'S WIDOW, IS BURIED IN ROME.

(Atlanta Journal.)

Rome, Ga., Feb. 6.—Mrs. Martha Smith Battey, widow of the distinguished surgeon, Dr. Robert Battey, of world-wide fame, passed away at her home here Sunday after a long illness.

She was born September 1, 1831, at Jefferson, Jackson county, Georgia, but her parents resided in Floyd county at the time, being on a visit to relatives at Jefferson. She was the daughter and the only child of William and Elizabeth Mayo Smith. Mrs. Battey was the first white child who ever lived in Floyd county, where at the time the Indians were in full control, and she often told of her thrilling



experiences when her parents feared she would be taken from them.

She married Dr. Robert Battey in Rome, December 20, 1849, and six children, twenty-three grand-children, thirty-three great-grand-children and one great-great-grand-child survive her. The children are Mrs. Grace Bayard, George M. Battey and Mrs. E. C. Crichton, of Atlanta; Mrs. Mary B. King, of Waycross, and Mrs. Bessie Battey Troutman and Dr. Henry H. Battey, of Rome.

During the war between the states, Mrs. Battey was an invalid, but she would ride up and down the railroad tracks on a hand car and was often summoned before the provost marshal of the Union forces because of her outspoken southern sentiments and her efforts to assist the southern cause. After she was married to Dr. Battey she was his assistant in his wonderful surgical work, and even established a school for trained nurses, in his sanitarium here, as there were at that time no schools to train nurses, and nurses with any experience were difficult to obtain.

The funeral was held Monday afternoon at 2:30 o'clock, at the First Methodist Church, with the pastor, Dr. Wallace Rogers, officiating, assisted by Dr. Edward R. Leyburn, pastor of the First Presbyterian Church, and interment was in Myrtle Hill cemetery.

#### NEWS ITEMS.

Dr. Theodore Toepel, of Atlanta, Georgia, has recently returned from New York where he visited orthopedic clinics held by Dr. Lorenz under the direction of the New York Commission of Health.

Dr. J. Whitridge Williams, Professor of Obstetrics and Dean of the Johns Hopkins Medical School of Baltimore, addressed the Clarke County Medical Society and the Scientific Society of the University of Georgia, Athens, Georgia, Friday, February 18th, 1922, at 8 A. M. at Peabody Hall, University of Georgia Campus. While in Athens Dr. Williams was the guest of Dr. McPherson, Professor of History at the University and an Alumnus of Hopkins.

#### Announcements.

Dr. Elmore C. Thrash announces the removal of his offices from Candler Building to 79 Forrest Avenue, Suite One. Clinical and Laboratory Consultations.

Dr. Guy A. Caldwell announces the removal of his office from 78 Forrest Avenue to 746 Peachtree Street to continue the practice of Orthopedics.

Dr. Marshall R. Sims announces the removal of his office from 719 Hurt Building to 79 Forrest Avenue.

Dr. L. B. Clarke announces the removal of his office from the Peters Building to 79 Forrest Avenue.

#### American Congress on Internal Medicine.

The American Congress on Internal Medicine holds its next annual clinical week at Rochester-Minneapolis April 3rd to 8th. Special trains will run under official sanction over the Chicago Great Western direct from Chicago to Rochester-Minneapolis and Kansas City to Rochester-Minneapolis. Further information can be obtained from the Secretary-General, Dr. Frank Smithies, 1002 N. Dearborn St., Chicago, Ill.

#### Ninth District Medical Society.

The Ninth District Medical Society will convene at Toccoa on the third Wednesday in March, 1922. A very elaborate program is being prepared and a good attendance is expected.

#### ABSTRACT.

#### A COMPARATIVE STUDY OF SYPHILIS IN WHITES AND NEGROES.

By Ernest L. Zimmermann, M. D.,  
Archives of Dermatology and Syphilology,  
Vol. 4, No. 1, July, 1921.

There has been much speculation in regard to the variations in the reaction of persons to syphilis. Inheritance probably plays a part, and environment in its broadest sense, which includes occupation, habits, associated disease and the effect of

treatment, influences the course of the disease. There may be added to these, the variation in strain of the spirocheta pallida, a conception apparently substantiated by recent animal experimentation. It cannot be assumed, however, that strains infecting the whites, except in so far as racial antipathy and the legal restrictions placed upon miscegenation prevent intimate personal contact between the races and pave the way for the evolution of strain variations.

In this paper, a comparative study of syphilis in whites and in negroes is undertaken for the purpose of emphasizing inherited racial differences in response to syphilitic infection. The author presents a review of investigations that have thus far been accomplished, besides presenting the results of the investigation upon the syphilitics of the Johns Hopkins Dispensary, where 1,843 cases, 893 whites and 950 negroes were studied. The manifestations of the three different stages of the disease in both races were studied and compared. The following general conclusions were formed:

**Primary Syphilis.** Extragenital infection is relatively infrequent in negroes. Among them the age of infection is one or two years earlier than in the white population.

**Secondary Syphilis.** Characterized in the negro by marked polyadenitis, by frequent and severe osteo-arthritic symptoms, by the frequency of iritis, and by the high incidence of follicular and pustular syphilids. A striking racial peculiarity is the frequent occurrence of the annual papular syphiloderm.

**Tertiary Syphilis.** Bone syphilis is the most frequent lesions of tertiary syphilis in the negro, exceeding neurosyphilis, which in white patients comprised almost half of all late manifestations.

Cardiovascular syphilis is more frequent in the negro, with an incidence of two to one in colored and white males, respectively.

Stricture of the rectum and elephantiasis

asis vulvae are extremely common in the colored people.

Leukoplakia is rare in the negro.

Tertiary adenitis is common in the negro.

Neurosyphilis is more frequent in white patients than in negroes. The negro is less likely to develop tabes or paresis, while the large group of unclassified cases of cerebrospinal syphilis is approximately of equal frequency in the two races. In negroes it is especially likely to manifest itself in the form of cerebral endarteritis.

### Conclusion.

In respect to syphilitic infection there exist inherited biological differences between white and negro patients. The negro develops intense reactions on the part of cutaneous and osseous structures, and is relatively free from tabes and paresis. In white patients, syphilis more frequently runs its course with skin manifestations slight or absent, but there is a greater tendency toward the eventual development of tabes or paresis.

### MAGNESIUM SULPHATE POISONING.\*

Anderson reports the cases of two children who had a progressive muscular myopathy, possibly a progressive muscular dystrophy, and intestinal parasites, *uncinaria americana* in one case, and *tenia nana* in the other. Both children were given 2 ounces of saturated solution of magnesium sulphate. Following this initial dose each child had four or five large, loose, watery stools. Breakfast was omitted the following morning and at 6, 8 and 10 a. m. one child was given 8 grains of oleoresin of male fern. At the same hours her sister was given 8 grains of thymol. At 12 noon both were given 1½ ounces of saturated solution of magnesium sulphate. Following this second dose of magnesium sulphate there was no purging. Ten hours following the second dose of magnesium sulphate both children were in a profound state of collapse. They complained of intense abdominal pain, of be-

\* Abstract. J. A. Med. As. Vol. 78, No. 3, p. 243.



ing hot, were nauseated and vomited coffee ground vomitus almost continuously, so that no food or liquid could be retained by mouth for forty-eight hours. They would sink into a comatose stage with eyes rolled up under half closed lids, scarcely perceptibly breathing, slowly and deeply. At all times, however, they could be aroused, could tell how they felt, and their mentalities were clear throughout. Their extremities were icy cold, their pulses could not be palpated at the wrists for twenty hours and their heart sounds were very weak and rapid. There was no jaundice, no spasms or convulsions. The abdomen showed slight general rigidity, not localized. There was marked suppression of urine and feces for about twenty hours, after which both urine and feces were passed in bed, so that a careful examination was not made. High colon irrigations of physiologic solution of sodium chlorid and proctoclysis of 5 per cent. glucose were begun, after which the bowels eventually moved, the vomiting ceased, and the children could retain a little strong hot coffee at first after about forty-eight hours. The pulses became palpable at the wrists, respirations began to approach normal and the stuporous condition slowly passed away, so that within four or five days the children were in the same condition as on admission and could retain the usual hospital diet.

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#### EXAMINATION FOR INTERNES AT GA. STATE SANITARIUM.

An examination will be held at the Georgia State Sanitarium, Milledgeville, Ga., April 3rd, at 10 A. M., for the appointment of two Internes. Regular graduate physicians are eligible. For further information, write,

DR. L. M. JONES, Supt.,  
Milledgeville, Ga.

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#### BOOK REVIEW.

**Anxiety Hysteria.** By C. H. L. Rixon, M. D. M. R. C. S., Senior Neurologist, Ministry of Pensions Neurological Hospital, and D. Matthew, M. C., M. B., Ch. B., Neurologist, Ministry of Pensions Neurolog-

ical Hospital, Exeter. 124 pages. Paul B. Hoeber, New York. 1921.

The authors have presented the most modern views of the neuroses in this work. The psychoanalytical schools' insistence upon the teleological nature of the neuroses had prepared the authors' minds for a rational point of view. The urge of the instinct of self preservation brought about during the war was so obvious that the physician was compelled to take cognizance of the role played by the emotions in the production of the emotions. This book furnishes an excellent opportunity for the physician to gain a better understanding of the psychogenesis of the war as well as some of the peace time neuroses. The language is simple and the illustrations well prepared.

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**The Yeasts.** By Alexandre Guilliermond, D. Sc. Prof. of Botany, Univ. of Lyons. Translated by F. W. Tanner, Asst. Prof. in Bacteriology, Univ. of Ill. 424 pages. John Wiley and Sons, Inc., New York. 1920.

The author and translator have brought this work thoroughly up to date. It describes in detail all known species of yeast from a morphological, cytological and physiological standpoint. The cultivation and classification of the various yeasts are treated exhaustively. Since so much has been written on the value of yeast in medicine within the past few years, this book should be of value to all physicians who are interested in the subject.

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#### BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

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**The Principles of Therapeutics,** by Oliver T. Osborne, M. D., Professor of Therapeutics, Department of Medicine, Yale University. Octavo of 881 pages. Phila-

## HONOR ROLL.

Counties which have reported 100% membership for 1922. All eligible doctors in these Counties are members of the Medical Association of Georgia.

County	President	Secretary	Delegate	Councillor
Pike .....	J. C. Beauchamp, Williamson.	M. M. Head, Zebulon.	D. L. Head, Concord.	J. O. Elrod, Forsyth.
Upson .....	H. A. Barron, Thomaston.	R. L. Carter, Thomaston.	A. H. Black, Thomaston.	J. O. Elrod, Forsyth.
Jones .....	J. H. Riley, Haddock.	P. R. Chambliss, Gray.	J. D. Zachary, Bradley.	J. O. Elrod, Forsyth.
Crisp .....	W. B. Smith, Cordele.	P. L. Williams, Cordele.	A. J. Whelchel, Cordele.	V. O. Harvard, Arabi.

The next annual meeting of the American Medical Association will be held in St. Louis, Mo., May 22-26, 1922. A list of the leading hotels was given in the February issue. Make your reservations early. Write to Dr. Alex R. Craig, Secretary, A. M. A., 535 N. Dearborn St., Chicago, for Identification Certificate for special reduced rates of one and one-half fare for the round trip. One or two special Pullmans will be run from Georgia. Get ready to get aboard!

delphia and London: W. B. Saunders Company, 1921. Cloth \$7.00 net.

**Abdominal Pain**, by Prof. Dr. Morbet Ortner, Chief of the Second Medical Clinic at the University of Vienna. Authorized transaction by Wm. A. Brams, M. D., formerly Lieut. Commander Medical Corps U. S. N., and Dr. Alfred P. Luger, First Assistant Second Medical Clinic, University of Vienna. Octavo of 362 pages. New York, Rebman Co., Herald Square Bldg., 141-145 W. 36th St. 1922.

**Lessons on Tuberculosis and Consumption for the Household**. Showing how to prevent tuberculosis, how to recognize its first symptoms, how to win back health. By Chas. E. Atkinson, M. D. Octavo of 470 pages. Funk & Wagnalls Co., New York and London. 1922.

**Pediatrics and Orthopedic Surgery**. Vol. 4 of the Practical Medicine Series, edited by Isaac A. Abt, M. D., and Edwin W. Ryerson, M. D. Octavo of 306 pages,

1921. The Year Book Publishers, 304 So. Dearborn St., Chicago, Ill.

**Submucous Resection of the Nasal Septum**, by W. Meddaugh Dunning, M. D., Consulting Otologist, Fordham Hospital, N. Y. C.; Consulting Otologist, Manhattan State Hospital, N. Y.; Consulting Laryngologist, Ossining City Hospital, Ossining, N. Y.; Consulting Laryngologist, The Alexander Linn Hospital, Sussex, N. J.; Assistant Surgeon, Manhattan Eye and Ear Hospital, N. Y.; Surgeon, Bronx Eye and Ear Infirmary, N. Y. Octavo of 97 pages. Surgery Publishing Company, New York, 1921.

**The Spleen and Some of Its Diseases**. The Bradshaw Lecture of the Royal College of Surgeons of England, by Sir Berkeley Moynihan, Leeds, with thirteen full page diagrams. W. B. Saunders Company, Philadelphia, 1921.

## DEATHS.

Dr. M. Ford Morris, age 27, died suddenly February 26, 1922.



## Announcement Extraordinary!

Next meeting of the Medical Association of Georgia will be held at

COLUMBUS, GA., May 3rd, 4th and 5th, 1922.

This will be a special **Home-Coming** meeting.

All former members of the Association living in other states have been invited. Many will come.

Special reduced rates of one and one-half fares for the round trip have been granted by all railroads. Get certificates for yourself and guests when purchasing your tickets.

All Ex-Presidents are expected to be present. They will occupy special seats of honor at the **Annual Banquet**.

Special entertainments have been provided for the wives, daughters, sweethearts and friends of the members.

A trip to Camp Benning with special program is listed.

**Pay your dues now.** Keep your insurance against mal-practice suits. Keep in good standing.

**Columbus invites you! Columbus will welcome you!**

**Columbus will entertain you!**

Let's have the **Greatest Meeting** in the glorious history of the Association.

**Come and bring your wife.**

# THE JOURNAL

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No. 4

### ORIGINAL ARTICLES

#### THE GALL-BLADDER AND SOME OF ITS AFFECTIONS.

Frank K. Boland, M. D.  
Atlanta, Ga.

Five questions will be considered briefly: 1. The function of the gall-bladder. 2. The etiology of cholecystitis and gall-stones. 3. Clinical classification of gall-bladder affections. 4. Symptoms and diagnosis. 5. Surgical treatment.

1. Function of the gall-bladder. Many reliable authorities have considered that the gall-bladder has no function, that it is a vestigial organ analogous to the appendix. Others believe it is a simple reservoir for the storage of bile, that it is a regulator of pressure between the liver and the pancreas, that it is an actively secreting organ elaborating and adding to the bile something which is of importance either to the general body economy or to the mechanism of bile expulsion or its chemical action. Quite recently a great deal of literature has appeared to support or deny the various theories of gall-bladder function. Harer, Hargis and Van Meter, of the University of Pennsylvania, after exhaustive experiments and a review of the work done by others, do not think that any of the above-named functions should be ascribed to the gall-bladder. They state that it is a too-well-formed organ not to possess some function, in spite of the fact that human beings live in apparently perfect health for years after the removal of the organ.

Harer and his associates contend that if the gall-bladder is a simple reservoir it should be supplied with some mechanism

by means of which it can empty itself of its contents. The bladder wall contains muscle but not of sufficient development to empty the viscus quickly, and no one has ever found the normal bladder entirely empty. The so-called rhythmic contractions are too feeble to produce positive results. The gall-bladder can not be proved to regulate the flow of bile. Rather this office seems to rest in the contraction and relaxation of the sphincter muscle of Oddi, in the ampulla of Vater. Neither is the gall-bladder necessary to prevent the regurgitation of bile into the pancreas, as has been alleged by some writers. The anatomical arrangement of the pancreatic and bile ducts is such, in the majority of subjects examined, as to make a flow impossible. A good number of students affirm that the mucus added to the bile in the bladder is important, and constitutes one of the functions of the organ. Flexner has showed that if pure bile is injected into the pancreatic ducts, acute pancreatitis occurs, whereas, if the bile is mixed with mucus its action is considerably modified. In spite of this demonstration it has not been shown that removal of the gall-bladder tends to produce pancreatitis.

Another function of the organ which has lately received wide acceptance, since the publication of the experiments of Rous and McMaster, of the Rockefeller Institute, is that of the concentration of bile. Harer and his co-workers believe that this concentration is effected chiefly by the lymphatics of the gall-bladder, by dehydration. Even this explanation fails to account for the functional value of the gall-bladder entirely, since so many indi-



viduals appear to have good health after being robbed of the organ. Evidently concentration of bile is a necessary action since it has been shown repeatedly that the bile-ducts dilate after cholecystectomy and continue the function of concentration. Altogether there seems to be much yet to be learned concerning the function of the gall-bladder. As a recent editorial in the *Journal of the A. M. A.* remarks, however, "the surgeon would do well to remember that uncertainty as to function and confidence in readjustment are at best questionable motives for adventures in ablation."

2. Etiology of Cholecystitis and Gall-stones. Most authorities agree that gall-stone formation is invariably due to antecedent cholecystitis, and such cholecystitis usually follows through the blood stream rather than direct extension from the duodenum or liver or any other mode of transmission. In their recent work Harer, Hargis and VanMeter have demonstrated a most complete system of lymphatics in the gall-bladder, an anatomical fact which heretofore apparently has not attracted much attention. While these experimenters do not deny that infection reaches the bladder through the blood, they contend that it leaves the bladder through the lymphatics, and is especially liable to reach the appendix and pancreas. The co-existence of appendicitis and cholecystitis is seen almost daily in our operating rooms, and it is the impression of the writer that a careful inquiry into the history of such cases shows that symptoms of appendicitis usually were present first. Certainly the frequency with which infection of neighboring organs of the alimentary tract appears with cholecystitis should urge the importance of exhaustive examination of these organs during every gall-bladder operation.

The bacteria responsible for cholecystitis, named in order of frequency, are the streptococcus, straphylococcus, colon bacillus and typhoid bacillus. We are used to thinking of the typhoid bacillus as being the commonest factor, but in several

large clinics it has not been demonstrated in more than ten per cent of cases. The writer is of the opinion that a higher per cent of typhoid infections prevails in this section of the country. Dr. L. F. Barker states that from his own person four large gall-stones were removed by Dr. Finney thirty-five years after he had had typhoid fever, and that cultural methods demonstrated living typhoid bacilli within the interior of one of the stones.

The bacterial origin of cholecystitis does not explain its occurring three times as often in women as in men, so we are forced to use pregnancy, pelvic infections and the sedentary life as accessory factors.

Gall-stones may form in any part of the biliary tract, but since they originate far more commonly in the gall-bladder, stagnation of bile, as well as infection, is assigned as one of the causes of their formation. Two of the chief constituents of gall-stones are cholesterin and calcium. The preponderance of the latter element over the former, in a certain per cent of cases, determines our ability to demonstrate gall-stones with the x-ray. No doubt the time will come when this method of diagnosis may be depended upon in a large proportion of cases.

3. Clinical Classification. Judd's classification is a workable one. He names four groups, the first being those cases of a more or less chronic cholecystitis, producing dyspepsia and at times acting as a focus for a more or less general infection. The pain usually is not typical, and is apt to be more or less constant. Slight jaundice frequently is present and sometimes is persistent. Attacks with a rise of temperature may be a part of the picture suggesting that the infection extends beyond the gall-bladder. In such cases as these the gall-bladder acts as a focus for systemic infection, comparable to the teeth or tonsils. However, to blame certain toxic symptoms, such as neuritis and joint-pains, on the gall-bladder, must be done with great caution. The proof lies in the disappearance of such symptoms following cholecys-

tectomy, a result which is reported repeatedly.

The so-called strawberry gall-bladder is found in this condition. Stones may form, but usually do not in the strawberry gall-bladder. Gangrene and perforation also may occur without the existence of calculi.

Sometimes we may find a gall-bladder which apparently gave clinical symptoms, but which may show no definite pathological change. The likelihood is that we have missed the diagnosis. However, it is remarkable how many patients get well following drainage or removal of the gall-bladder in such a case. We see the same thing in appendicitis. This is not ideal surgery, however, and is fraught with much danger. It has been well said that every surgical procedure should be based upon pathological as well as clinical evidence. Before we had the means of diagnosing gastric and duodenal ulcers with some degree of accuracy, how many needless gastro-enterostomies were performed, to the great distress of the patient afterward?

The second group of Judd includes those cases with typical gall-stone colic. The symptoms are definite, the attacks are short, sharp and colicky, with characteristic radiation and residual soreness. Usually there is no chill, fever or jaundice. Morphine and external heat are required to relieve pain. Such cases as these go on for many years without seeking surgical relief. Between seizures the patient's health seems normal. Operation may reveal inflammation of any degree, with gall-stones of any size or number. It is remarkable now nearly normal many gall-bladders in this group appear, despite the stones they contain. If only a cholecystostomy, with removal of stones, is performed, these are the cases which give us our largest number of secondary operations on the gall-bladder. Following the first operation the patient enjoys several months or a few years of comfort, then the symptoms return. Secondary laparotomy will show adhesions or new or overlooked old stones as the cause of the recurrence. Formerly we

were taught that gall-stones, once all removed, did not return. Later experience has demonstrated the fallacy of this belief.

In the third group is cholangitis with stones in the common duct. The attacks are accompanied by great pain, with jaundice. If stones do not completely obstruct the duct pain may be slight or absent. In the absence of pain, if the jaundice is persistent and increasing, the patient probably has cancer. In common duct stone cases the gall-bladder often has been destroyed, and a more complete recovery will follow its removal. All ducts must be most carefully examined, although it is not wise to incise a duct and probe unless a stone is felt.

Group four includes those typical cases of cholangitis with painless, or almost painless, jaundice. These are poor surgical risks, and exploration may show an error in diagnosis, since the condition may be found to be cirrhosis or carcinoma at the ampulla of Vater or in the head of the pancreas. In most cases of gall-bladder disease accompanied by thickening and hardening of the head of the pancreas the pathology present is more liable to be secondary pancreatitis than carcinoma. Such pancreatitis is a consequence of cholangitis and cholecystitis, and usually is cured by removal of the gall-bladder. Operation in these cases is dangerous on account of secondary hemorrhage, resulting from jaundice. This may come from the wound, or possibly from the mucous membrane of the nose, throat or intestinal tract. It may begin any time up to eight days after the operation. One case of the writer's started two days after the operation and proved fatal. Transfusion is the best method of treating such hemorrhage, both before it begins and afterwards. To operate safely, the coagulation time must not be greater than twelve or fifteen minutes. The use of calcium salts in this condition has been disappointing.

5. Symptoms and Diagnosis. The limits of the paper will not permit further discussion of these subjects. The symptoms of disease of the gall-bladder and its ducts



are well understood. Differentiating duodenal ulcer from cholecystitis with or without stones should not be difficult, but many mistakes in diagnosis are made. In some parts of the world duodenal ulcer seems to be a very common disease, but in this section the writer thinks that a diagnosis of gall-bladder disease is more apt to be correct than a diagnosis of duodenal ulcer.

5. Surgical Treatment. There is considerable difference of opinion as to which is the better operation, cholecystostomy or cholecystectomy. Some writers are advocating again the so-called "ideal cholecystostomy," which consists of removing stones from the gall-bladder and closing the organ without drainage. This does not strike one as being a rational method of surgical procedure. The Mayos strongly recommend the removal of the gall-bladder in practically all cases, but insist that the operation is not one for the novice. It appears to the writer that a decidedly diseased gall-bladder is better out than in, if it can be removed with safety to the patient. It is asking too much of ten days' drainage to cure it entirely. Often there are cases in which it would be manifestly poor judgment to perform the radical operation, in patients, for instance, whose general condition is poor, and in whom adhesions are so dense as to render cholecystectomy exceedingly difficult.

Many operators claim that their patients suffer as much after cholecystectomy as before, or even become worse. Of course it should be remembered that some other cause besides the operation may be responsible for the symptoms, such as stone in the common duct, or a pancreatitis, or as McCarty and Jackson recently have shown, a co-existing chronic hepatitis. Postoperative adhesions are a great bugbear in any gall-bladder surgery, but are much less liable to take place if cholecystectomy can be performed without drainage. Hartman, Smyth and Wood tell us that in removal of the gall-bladder the cystic duct must be tied close to the common duct. If a cystic duct stump is left it usually dilates to form

a pseudo gall-bladder. Hence we may get a recurrence of the symptoms after a cholecystectomy.

If malignant disease or adhesions obstruct the flow of bile and can not be relieved, the gall-bladder should be retained for anastomosis with the duodenum. Dr. Sage Hardin, of Atlanta, drains the gall-bladder in many cases by Murphy button anastomosis with the duodenum, but so far he has not published his results.

In removal of the gall bladder extreme care should be exercised to (a) tie the cystic artery securely, and (b) not to damage the hepatic or common ducts. Many surgical tragedies have resulted from failure to observe these precautions—more than have been reported. If the cystic artery and cystic duct are positively recognized and isolated such accidents should not occur. There is no objection to tying the two structures together, provided the duct is not too thick and a sufficiently strong suture is used. Tying the hepatic or common duct completely obstructs the flow of bile and usually causes the death of the patient. Cutting one of these ducts and not recognizing and repairing the damage promptly, a very difficult thing to do, causes a permanent biliary fistula, or in some cases septic peritonitis and death.

Frequent anomalies in the course of the hepatic and cystic arteries and in the arrangement of the bile ducts no doubt is responsible for many serious accidents. Our text-books on anatomy do not teach many variations from the normal, but they are frequent. Eisendrath's contribution to this subject is valuable. He finds, among other anomalies, that frequently the upper branch of the hepatic artery runs almost the entire length of the cystic duct before giving off its cystic branch. In one hundred subjects in which he examined the arrangement of the bile ducts he found variations in twenty-five. One of the commonest departures from the normal consisted in the cystic and hepatic ducts being parallel to one another for some distance, such a condition being congenital or the result of adhesions. This

arrangement was present in seventeen of the twenty-five specimens. Another frequent variation showed the cystic duct crossing the hepatic duct and joining the common duct from its medial instead of from its lateral side. From this great number of anomalies in such a small series of cases it is easy to see how in tying and cutting the cystic duct in cholecystectomy one of the other ducts might be injured. Correction of such injuries is always difficult and sometimes is impossible.

The following authorities were used in the preparation of this paper:

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MacCarty and Jackson: The Relation of Hepatitis to Cholecystitis, Mayo Clinics, 1920.

Journal of the A. M. A. Editorial, March 4, 1922.

### RECURRENT INGUINAL HERNIA.\*

Charles Hansell Watt, B.Sc., M.D., F.A.C.S.  
Thomasville, Georgia.

There exists among surgeons a rather general impression that the last word has been said in the operative treatment of inguinal hernia, that the operation for its cure has become a cut and dried procedure and any recurrence, in the absence of infection, is not the fault of the operation or the operator but is just one of those failures that every surgeon may expect.

Available statistics show recurrences from 1 to 8 per cent, but some writers believe that even 8 per cent is too low, that were there accurate statistics available the percentage would be even higher. These figures indicate that we still have a great deal to learn about the treatment of this common abnormality. Perhaps the surgeon has been careless in the execution

of the operation, or has shown poor judgment in selecting the type of operation. If these can be ruled out then there must be certain herniae for the cure of which a successful operation has yet to be devised.

It is not the purpose of this paper to propose a new operation for the cure of inguinal hernia nor to lay claim to any new ideas relative to its treatment, but merely to recall such points as will help those of us inclined to be stereotyped in our hernia operations to regard each hernia as a problem in itself. If we expect to reduce our recurrences to a minimum we must be thoroughly familiar with the anatomy of the inguinal region, conversant with its various types of herniae, and grounded in the surgical principles which are essential to successful work. The surgeon who possesses these prerequisites and conscientiously applies them may expect a lower percentage of recurrences than one who lacks them or fails to apply them and who uses the same conventional operation for every variety of inguinal hernia.

Everyone is familiar with the usual classification of inguinal herniae, but it is desired just here to recall the three main types:

1. Indirect or oblique inguinal hernia.
2. Direct.
3. Direct-indirect, or a "combination" of 1 and 2.

In type 1, that is: the oblique or indirect hernia, the point of selection in the abdominal wall is the internal abdominal ring, which is lateral to the deep epigastric vessels; whereas in type 2, or direct hernia, this point is not at the internal abdominal ring but lies mesial to the deep epigastric vessels, behind the external abdominal ring and normally is covered by peritoneum, preperitoneal fat and the transversalis fascia. The weakening of this last-named structure allows a hernia to develop.

In type 3 we have these two weak points, or perhaps the two merging into one large defect which extends from the internal abdominal ring down through the entire

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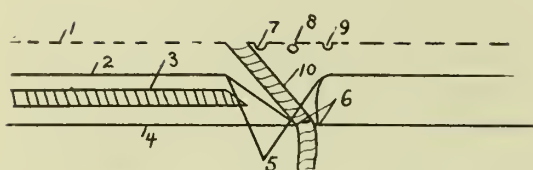


Fig. 1. Diagrammatic Section of Inguinal Region.

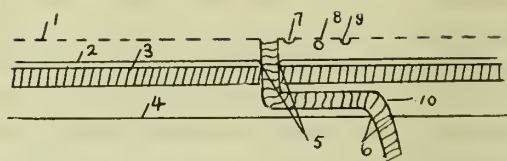


Fig. 3. Operation for Direct Hernia; Transplantation of Cord.

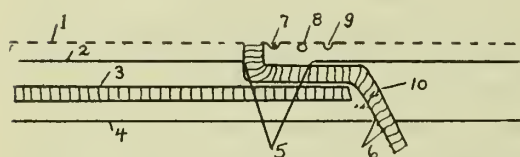


Fig. 2. Operation for Indirect Hernia; Nontransplantation of Cord.

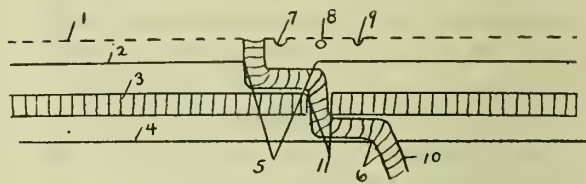


Fig. 4. Operation for Direct-Indirect Hernia. Combined Method.

Figs. 1, 2 and 3 taken from Johnson's surgery. 1. Peritoneum. 2. Transversalis Fascia. 3. Internal Oblique Muscle. 4. External Oblique Muscle. 5. Interanal Inguinal Ring. 6. External Inguinal Ring. 7. Situs of Indirect Hernia. 8. Deep Epigastric Vessels. 9. Situs of Direct Hernia. 10. Spermatic Cord. 11. (Fig. 4) Opening for Cord in External Oblique Muscle.

floor of the inguinal canal to the region of the pubic spine and external ring.

Now, it is illogical, hence unscientific, to assume that the same operation may be employed successfully in these different varieties of hernia having their exits located at separated points in the abdominal wall.

Whether or not a given hernia is direct or indirect cannot be positively diagnosed prior to operation, except in occasional cases where the opening is large enough to allow the introduction of the examining finger sufficiently far to palpate the deep epigastric vessels. In the great majority of cases this cannot be done and the final diagnosis must be deferred until operation. The presence or absence of obliquity in the swelling however may suggest the type.

The differential diagnosis of direct or indirect hernia is positively established by opening the sac and palpating the deep epigastric vessels. If these vessels are felt lateral to the sac then the hernia is direct, if mesial it is indirect. Yet the examining finger in the hernial sac may locate the combined variety, forming type three.

The aim of any operation for hernia is to strengthen the weak points, in other words, to construct a buttress directly over the weak spot. A careful analysis of anyone of the approved operations should be sufficient to convince one that

none of them is suitable for employment in all varieties.

A careful study of the accompanying sketches taken from an article on this subject by Moschcowitz is more convincing than words. It will be seen from these that the points of exit of the two varieties of hernia are separated by the deep or inferior epigastric vessels. The situs of the indirect hernia (Fig. 2) is the internal abdominal ring. This exit one cannot close completely because of the spermatic cord or round ligament; the best one can do is to fortify this weak spot by making it as small as the cord will allow then building the buttress over it, that is, leave the cord in its bed and then suture the internal oblique and transversalis muscles to Poupart's ligament over the cord instead of under it. This causes the internal oblique and transversalis muscles to act as a well placed, constantly applied truss and transfers the exit for the escape of the cord into the scrotum from the region of the internal ring downward and inward some distance away. Transplantation of the cord in this variety of hernia does not construct such a buttress over the internal ring, except such as is formed by the external oblique alone. On the other hand, if the cord is transplanted the hole left of a necessity for the exit of the cord instead of being the depth of the trans-

versalis fascia is now the depth of this fascia plus the depth of the internal oblique. This of itself increases the likelihood of a recurrence at this point.

Turning now to the direct variety (Fig. 3), we see that non-transplantation of the cord will not construct the buttress at the weakest spot, or at least not as well as would be done by transplantation. In this variety our aim is to close the defect entirely as we do not have to leave an exit for the cord, therefore transplantation of the cord between the internal oblique muscle and the aponeurosis of the external oblique is the operation of choice. In some cases the internal oblique is so poorly developed that it is necessary to transplant a portion of the rectus fascia or else place the cord external to the external oblique aponeurosis or between its two halves.

It is evident from the foregoing that transplantation of the cord is also the operation of choice in the combined type, that is, the direct-indirect type. Wherever a direct hernia exists, alone or combined with an indirect, the operation of choice is transplantation. For this type of hernia I employ a combined operation, in which the cord is transplanted only in part (See Fig. 4), that is, the lower half over the site of the direct hernia. Here the entire floor of the canal is weak the entire cord is transplanted. A certain percentage of this variety occurs in elderly people, some of whom are willing to sacrifice the testicle in order to get a cure. In such cases the problem of repair is greatly simplified and the chances of a cure increased.

In the foregoing paragraphs I have discussed only one phase of this subject, but it is a most important phase, that is when to transplant and when not to transplant the cord, and I believe the failure to recognize or abide by these fundamentals is largely responsible for our failures. Aside from this there are several other most important points common to both types of operation, which, unless carefully observed, will tend to increase our recurrences.

1. First of these is complete excision of the sac. Unless this is done, flush with the abdominal peritoneum there will remain a dimple which exists as a potential recurrence. No matter how small the sac it should be removed and securely tied or transfixed. Slipping of this ligature has itself caused a recurrence.

2. Secondly, the layer of sutures which fixes the internal oblique and transversalis muscles to Poupart's ligament should consist of a non-absorbable or else a very slowly absorbable suture material, either silk, linen or perhaps kangaroo tendon. My preference is linen. The majority of surgeons no doubt use chromic catgut, but the objection to this is that it frequently does not maintain its hold long enough. We try to form a dense union between muscle on the one hand and a ligament on the other, two different types of tissue. This requires a long time and catgut, as said above, often does not hold together long enough to allow this firm union. This fact has been demonstrated at operation. The chief objections offered by critics of silk and linen are their no-absorbability and the result in case of infection. Personally, I do not believe any harm comes from burying silk and linen. The question of infection in the presence of silk and linen is an objection, but if one is careful in one's technic there should be no fear. There is no better test of one's technic than one's ability to use silk.

3. Thirdly, the tissues must be approximated without tension, which also means that sutures should not be tied so tightly as to strangulate the tissues. Failure to observe either of these essentials will result in the sutures cutting through with no doubt a partial or complete failure to cure.

These points have been emphasized by Moschcowitz in his article on hernia in Johnson's Surgery, but one point which he fails to bring out and which seems to me might be a rather common cause of recurrence, is:

The failure at operation to recognize the two types of hernia existing together.



The operator, finding a hernial sac of one or the other variety does not search farther for a second one, but contents himself with exercising the one and doing a repair. He prides himself on the job until a short time later the patient appears in his office saying his rupture has returned. More often, however, if there is a recurrence, the patient does not come back; goes to another surgeon, and the first surgeon has him listed as a cure.

I should like, in closing, to report briefly a case in point. In the spring of 1918, a soldier was admitted to the Base Hospital in France, to which I was attached at that time, complaining of a double recurrent hernia. He stated that he had been operated upon about four months previously in an adjoining base hospital. The patient stated that soon after leaving the hospital he noticed a small bulging at the lower part of his right hernia wound and shortly afterward noticed the same thing on the left. Both were getting larger. Examination revealed two well-healed hernia scars with no bulging with patient recumbent, but when he coughed or stood there appeared at the lower part of each wound a small swelling the size of a pigeon's egg.

At operation I found that a perfect operation for an indirect hernia had been done (non-transplantation of the cord), but at the lower end of the canal, just above the pubic spine on each side there was a defect in the transversalis fascia which would just admit the tip of the index finger. To repair this the small sac was excised, and the lower portion of the cord dissected out and transplanted. Had this defect been detected at the first operation and the cord transplanted throughout its lower portion there would have been no second operation. Of course, the question arises, did this hernia not develop after the other operation. That is possible, but the elapsing time was so short that it seems very unlikely. My impression at the time was that it had been overlooked.

When this patient left the hospital there was no evidence of recurrence. The final result I do not know, but I have every rea-

son to believe that he was permanently cured.

### Conclusion.

In order to reduce our recurrences in hernia operations I wish to offer the following suggestions:

1. Regard each hernia as a problem in itself to be treated as such.
2. Transplantation of the cord is indicated in the direct type of hernia and in the combined type but contra-indicated in the indirect type.
3. The universal adoption of a more resistant suture material; complete excision of every sac, no matter how small, with secure ligation or transfixion of same; careful dissection of all tissues and accurate approximation of same without strangulation.

Careful observation of these essentials I believe will materially reduce our recurrences.

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### THE TREATMENT OF AMEBIC DYSENTERY.

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The writers have been requested to furnish a brief resume of the present and best-accepted treatment of amebic dysentery. This we will endeavor to do.

We are naturally greatly indebted to the workers in tropical medicine, and those members of the Public Health Service, who have toiled diligently in this field, and whose labor has been fruitful. Other than Deeks, and a few of his followers, the great majority of clinicians feel that only one drug should be seriously considered—that drug being ipecac in its various forms. The value of ipecac dates back to an early period in medical history, probably as far as 1682. Its most noticeable victory was in the cure of the son of Louis the 14th. It so impressed the French government that the secret was bought outright from Helvetius, and since that time its popularity has waxed and waned until it has reached its present position in the confidence of the medical profession. Ipecac is used either in the powdered form,

or in the form of emetin, one of the active alkaloids derived from the ipecac root.

We will now take up the treatment of a case of acute amebic dysentery. The patient should be placed in bed, and, if possible, under the care of a competent nurse. The diet for the first few days should be restricted to liquids, such as broths, strained soups, and albumens. Sweet milk is generally contra-indicated.

A saline purge should be administered so as to empty the intestines of retained contents, and may be repeated at rather frequent intervals, so as to keep up an intestinal peristalsis from above downward. The patient will generally require a sedative, either opium or a small dose of morphine hypodermatically, to obtain rest and freedom from pain. Turpentine stupes or a hot water bag may be placed on the abdomen, if needed. The use of emetin hypodermatically may then be begun. While some have suggested its introduction into the vein, this is seldom advisable. The dose may be from one to one and one-half grains, six hours apart for a period of from twelve to twenty-four hours. After that it should be given once a day for a week or ten days. During convalescence careful search of the stools should be made for vegetative, as well as encysted organisms. No case should be considered cured until repeated examination of the feces shows a complete absence of the ameba or cysts.

In an ordinary acute case the symptoms are soon controlled, but should there be difficulty in promptly ridding the stools of the ameba, the infection tends to assume a chronic form, and the treatment will have to be followed up with diligence. In the treatment of this difficult malady, the distinction must be made between the relief of clinical symptoms, and the complete removal of the infection from the tissues. The lull which follows an acute manifestation may only be the ushering in of a chronic state—not necessarily severe, but uncomfortable to the patient and taxing to the physician. However, if the emetin does not bring results, it will be neces-

sary to use the powdered ipecac root. The Rio ipecac seems to possess a greater amebicide power than any other form.

Great difficulty was encountered in administering sufficiently large doses of powdered ipecac until the advent of the so-called enteric pills, or pills immersed in a bath of salol. When properly prepared the salol is not dissolved by the stomach juices, nor is the ipecac liberated until it has progressed well on its way into the intestines.

Sometimes these enteric pills are passed undissolved with the stools, if the salol coating is too thick or too hard. Should this misadventure occur, it is well to either get a fresh supply or to puncture the coat of each pill with a needle before it is given.

These pills should be given at bed time, and no food allowed for from four to six hours previous. The patient should start off with about eight five-grain pills at night. This dose should be increased to as many as fifteen, if practicable. These pills should be given every night or every other night until about one hundred have been taken. It is much better to give them in large doses at night, rather than several doses during the day, for by the former method the intestines receive a concentration of the drug at one stated period within each twenty-four or forty-eight hours.

There may be a certain amount of nausea and vomiting during the early morning hours, but this can generally be controlled. An aid to the sedation of the patient is to use twenty drops of the tincture of opium, or an eighth of a grain of morphine hypodermatically, one-half hour before the pills are taken. Due account should be kept of those pills passed undissolved in the stools, so that the patient may receive at least one hundred pills during the treatment.

The patient should be kept in bed, if possible, the whole time, not being permitted to rise for any purpose, and on liquid diet.

Many patients rebel strenuously at taking so many pills, and in place of the pills



some clinicians have advised the introduction into the duodenum, through a duodenal tube, of ipecac in the form of fluid extract—one or two ounces, or a suspension of the powdered root in water in doses as high as fifty or sixty grains. Though this treatment is sometimes necessary, it is not as successful as when the enteric pills are employed.

As before stated, the use of emetin and ipecac, or the combination of both, is usually sufficient, if persisted in. We cannot, however, dismiss this subject without mentioning the bismuth sub-nitrate treatment as so ably sponsored by Dr. Deeks, a physician of repute, and one who has certainly had wide experience. Dr. Deeks advises that bismuth sub-nitrate should be administered in heaping teaspoonful doses, every three or four hours during the day, and this dosage maintained for a period of one to two weeks, or until the stool becomes perfectly formed. Dr. Deeks claims that in the treatment of several thousand cases his failure to cure has been negligible, and the writers would suggest that his treatment be thoroughly tried out should other methods fail.

There have been a multiplicity of procedures advocated, one being Chapparo Amargosa, the product of a small, thorny bush indigenous to Southwestern Texas and Northern Mexico. It may be administered either in the form of an infusion, or as a fluid extract, in doses of six or eight ounces three times a day, keeping it up until the patient has been apparently relieved. Many have claimed success from salvarsan and neo-salvarsan, but to the writers this sounds rather problematical.

Some have used adrenalin in doses of ten and twenty drops of the one to one thousand solution every two hours. Irrigations of the colon have recently occupied a prominent place in the minds of some clinicians, who have studied this disease. Among the substances which have been injected in this manner may be mentioned quinin sulphate, formalin, copper sulphate, potassium permanganate, silver nitrate, hydrogen peroxid, thymol, and coal oil.

While irrigation may exert a certain amount of palliation, it should be remembered that the major lesions of amebic dysentery are buried beneath the mucosa completely, and out of the reach of these various antiseptic solutions. We might say, however, that when complete destruction of the organisms has been achieved, irrigation of the lower bowel with a mild astringent solution may be worth while as an aid in healing the inflamed mucosa.

These suggestions, in the main, cover the treatment of amebic dysentery, but the writers cannot conclude without expressing their gratitude to Dr. Sidney K. Simon, of New Orleans, who has been a tireless worker in this field, and whose suggestions, extending over a period of quite a number of years, have always been of assistance.

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#### ECLAMPSIA.\*

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Eclampsia has been variously defined as "the kidney of pregnancy," "pregnancy nephritis," "albuminuria of pregnancy," the kidney being implicated either primarily or secondarily in most descriptions of the disease. The cause is absolutely unknown, and eclampsia closely resembles, and at times seems to merge with, ordinary uremia. Most authors consider it an intoxication caused by the elaboration or retention in the body of some as yet unknown poison.

Fatal cases show changes mainly in the liver, the kidneys, the brain and heart muscle—fatty degeneration and cloudy swelling of parenchyma cells of the liver, and kidney, mainly the tubular epithelium of the latter, with thrombi in the vessels, fatty degeneration and necrosis of heart muscle and punctate hemorrhages and edema of the brain. Brain cells also show nuclear degeneration.

The onset of eclampsia is usually sudden and usually but not invariably, in the last 2 months of pregnancy, sometimes after labor. Premonitory symptoms are those of a toxemia; gastric pain, nausea or uneasiness, disturbances of vision, flashes of light, blind-

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\* Read before the Clarke County Medical Society, Athens, Ga., Sept. 2, 1921.

ness, or spots before the eyes. Headache, increased reflexes or twitching muscles, and increased blood pressure are common. Convulsions follow, lasting from 1/2 to 2 minutes, tonic and clonic, with mental hebetude or coma between attacks. The temperature goes up, often markedly.

The urine is usually greatly decreased in volume or completely suppressed, contains much albumen, granular, hyaline and blood casts, blood and degenerated renal epithelium. Diacetic acid and acetone may be present, especially later in the course of the disease. Urea is diminished and uric acid and creatinin are said by some to be increased. Total nitrogen is decreased and ammonia is decreased at first, later increased.

These changes are not due apparently, to simple failure of excretion, as the accompanying table of Losee and Van Slyke shows no marked increase of urea or non-protein nitrogen in the blood of eclamptics. This would seem to implicate organs higher up than the kidneys in failure to elaborate these end products.

The course of eclampsia is rapid, three days usually showing marked improvement or death. Labor is most apt to begin soon after the first convulsion and to be rapid, and improvement usually follows delivery. The maternal mortality is about 25%, and 50% of the babies die. In favorable cases, all symptoms of kidney disturbance leave within from 3 to 12 weeks; if albuminuria persists it is due to chronic nephritis supervening. Subsequent attacks of eclampsia are so rare that some authors consider that one attack confers immunity.

In diagnosis, other convulsive disorders must be ruled out. Epilepsy will give a history of previous attacks, and the urinary symptoms will be absent; diabetic coma shows typical urine findings, and hysterical and drug convulsions may be ruled out by the urine, also meningitis, encephalitis, cerebro-spinal syphilis, and brain tumor or abscess.

Uremic convulsions will show a history of gradual onset with urinary changes, possibly hypertrophy of the heart, albuminuric

retinitis and serum albumen in the urine. In eclampsia the onset is sudden, the temperature rises more rapidly and higher, the albumen of the urine is usually serum globulin or, as Berkeley and Bonney call it, "paraglobulin." Eclampsia clears up entirely unless nephritis follows—while true nephritis probably does not. A nephritis following true eclampsia is said to be rare.

In addition, Losee and Van Slyke have found some rather marked differences in the blood in these two diseases.

TABLE

	UREA Mg. to 100 cc.	CO <sub>2</sub> Comp. power cc. to 100	Non-prot. N. Mg. to 100 cc.
Normal	12-15	75-50	25-30
Ac. nephritis	40-100	45-20	—
Term. inter. neph.	60-300	40-15	100-350
Eclampsia	10-25	58-43	25-45

Blood findings, Losee & Van Slyke.

Unfortunately, I have found no data on blood creatinin and uric acid—but the whole picture of decreased urea and nitrogen output without blood retention would indicate that some organ or organs fail to break up and prepare for excretion certain products. As this work is a part of liver function, the liver would seem primarily at fault. If this is true, the kidney failure is secondary, possibly failure to excrete products which are not prepared for excretion.

Continuation of the eclamptic syndrome seems to be followed by the acidosis, decreased carbon dioxid combining power, kidney retention and damage of any poisoning.

Certain symptoms seem of especially grave import; a failing heart, with rapid, thready pulse and falling blood pressure; edema of the lungs, many convulsions and continued suppression of urine, or continued high blood pressure. If symptoms do not improve rapidly after delivery the outlook is bad. The albuminuria, even if marked, does not seem important unless it persists. Puerperal mania sometimes follows eclampsia.

The nearer term the disease appears, the better the outlook, and eclampsia appearing after delivery is not usually severe.

As most authorities differ regarding defi-



nition and symptoms of eclampsia, they differ still more regarding treatment. Some consider caeserean section indicated immediately in all cases, under local or spinal anaesthesia, nitrous oxid or ether—others advise induction of labor with rapid dilatation of the cervix and version or forceps extraction; others, a trial of venesection and elimination before more drastic treatment. De Lee discourages the use of all drugs except morphine and purgatives. Williams says that caeserean section should be done only when venesection fails to relieve and the cervix is rigid—Berkeley and Bonney consider immediate caeserean section the ideal treatment in all but the mildest cases, vaginal section if the child is premature. If conditions make section impossible, they advise dilatation of the cervix, version and extraction under ether. They do not mention the use of nitrous oxid anaesthesia.

For mild cases, before onset of convulsions, diuretics may help tho De Lee says not. Diaphoretics may do much harm, and the amount of toxin actually eliminated is probably small. Parathyroid and thyroid extracts have been advised.

Naturally, the nitrogen intake should be reduced to the lowest possible degree. Almost all authors agree that chloroform is never to be used in eclampsia and most of them would avoid ether, as both decrease alkali reserve and damage the liver and kidney.

In eclampsia, it would seem, with liver, kidneys and heart already more or less damaged, that infection of the uterus is to be avoided if humanly possibly; and while I like the birth canal all right I have very little confidence in our ability to disinfect it sufficiently for such prolonged maneuvers as vaginal caeserean section or dilatation of a rigid cervix and version or high forceps extraction. Abdominal caeserian section carries some shock and a minimum chance of infection; vaginal section requires longer, and general anaesthesia, with more chance of infection and hemorrhage; manual dilatation of the cervix, version and forceps extraction make some degree of infection al-

most inevitable and require more or less anaesthetic, therefore it would seem logical, in beginning our only moderately severe cases, to increase elimination if possible, by the bowel and kidney; reduce concentration of toxins by venesection, and induce labor promptly. Hot packs, light baths, bromides, veratrum, and thyroid extract are considered only temporizing methods by most authors and are condemned in all but the mildest cases. If conditions do not improve promptly and the kidneys and heart begin to functionate normally, abdominal section under local or nitrous oxid anaesthesia would seem indicated as offering the quickest relief and the least chance of superimposed infection.

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### THE ROUTINE EXAMINATION OF THE CHEST.\*

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It is not within the province of this paper to treat of the diseases to which the thoracic viscera are subject but to discuss the routine of the examination and the interpretation of the physical signs that stand out like mileposts directing the logical faculties to correct conclusion.

In this age of mechanical achievement one is wont to underestimate the importance of his senses and to pin his faith to some device of ingenious invention. It is far from our intention to decry the importance of these contrivances but the handmaiden must not become the mistress. The Golden Calf must not replace the true God.

In our senses of sight, hearing and touch we have sources of information, that for accuracy and comprehension far exceed the most intricate invention. Our very humanness makes us more or less superstitious so that in the presence of glittering appliances and abstruse formulae clutched by mystification we accept with equal credulity the voice of any one crying out in the wilderness. This very

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\* Read before the Second District Medical Society, Bainbridge, Ga., Feb. 11, 1921.

simplicity of faith is an evidence of the sincerity of our purpose and is the result of an over-anxiety to serve intelligently.

By all manner of means, let the ingenious mind continue to contrive but we should not discredit our senses till we are convinced that theirs is the error. More often than not we will find that the fault lies not in our senses but in ourselves. Goaded by failure let us not throw down these tools in futile rage but let us rather direct them with infinite skill and perseverance till we find that no human device can compare with the mental endowments from the Omniscient Intellect. Lenses may help the vision but they can not replace the eye.

Our concern then is, how shall we look and what shall be seen, how to hear and what shall be heard, and how to feel and what shall be felt. Anatomically speaking the left lung differs from the right in that it has no middle lobe, the heart taking its place. Functionally the two lungs are identical. Their excursions of respiration are equal, and their Isthmuses of Kronig are symmetrical and similarly located at the base of the neck. Their respiratory rhythm is the same. What will be seen on both sides is a smooth, equal rising and falling of the shoulders, and the chest expanding and contracting equally and with like rhythm. While over the area of cardiac impulse may be seen the rhythmic beating of the heart.

No thorax should be examined unless it is bared nor should the examination be hasty. The light should be sufficient and should fall on both sides equally. The patient should not be too close to the wall for the percussion sounds will be influenced thereby. Both the examiner and examined should be thoroughly at ease. The examiner should never assume a strained position for the interference with his respiration and the engorgement of his cephalic vessels, if his neck is on a strain, will affect his sense of hearing, making accurate observation difficult. If the stetho-

scope be used it should be correctly fitted to the ears so that in all positions of the head in listening the lumen of the tube will be directed to the lumen of the auditory canal. The tubing should be of very pliable rubber that does not collapse, and bell should be in perfect condition. If the Ford Bell is used it would be well to cover it with rubber (a nursing nipple serves very nicely). If a Bowles stethoscope is used care must be given to keep diaphragm in good condition.

The examination should be conducted in a serious and scientific manner. Self-consciousness on the part of either party greatly hampers the examiner. A complacent spirit of co-operation should characterize the patient and a careful and scientific method should mark the progress of the examiner. Impatience has no place if a satisfactory examination is sought. The senses of the examiner should be keen and fresh and his judgment unimpaired by fatigue. It were far better not to examine at all than to examine in a haphazard unscientific manner for a sick patient may be lulled to a scene of false security or untold mental suffering may be entailed upon an otherwise healthy person. There should be no effort at concealment on the part of the patient. The writer recalls now a young man who has since died of tuberculosis of the lungs that would persistently repress his respiration either consciously or otherwise so that the auscultation of his chest was practically useless. The patient should be impressed with the idea that the examiner is not pitting his wits against a patient and that they are not playing a game of hide and seek. The patient should make an earnest effort to show the examiner all that is in the lungs just as one would throw his cards on the table.

Thus then with the patient properly prepared in body, moved by an earnest and intelligent determination to find the truth, with the examiner clear in mind, complacent and assured in his conscious



ability, the examination should proceed in an established order.

During the period preceding the physical examination when the doctor and the patient are getting better acquainted and you might say their minds are getting en rapport, a skillful and painstaking investigation of the patient's history should be made. Let the patient talk. Nothing will inspire more confidence and will more quickly enlist the cooperation of the patient than having them pour out the travail of their mind into a sympathetic ear. They may ramble far afield but you will save time by their so doing rather than by causing irritation and repression by your seeming impatience. Carefully follow them for all they say will have either a direct or indirect bearing on their condition.

When they have finished they will be reassured by your careful attention and will cooperate with you to the utmost in your efforts. Don't be too sure that all is chaff that looks like it. Seriously consider every detail till its true worth is determined. Don't be antagonistic for it will surely engender a kindred spirit in the patient and you have an enemy and not a faithful ally in your search.

Take the temperature, pulse rate and rate of respiration. Observe the face for pallor or hectic flush, the conjunctivae for anemia. Examine the facies, are the alae of the nose pinched, is there mouth breathing? Is there an unnatural lustre to the eyes, do the nails show disturbance of nutrition? Is the general nutrition of the patient good, bad or indifferent?

When you inspect the chest do so without the knowledge of the patient. You want the natural characteristic posture of the patient. It is no full dress parade nor do you wish a patient cringing and shrinking with bashfulness. The muscles of the thorax should be relaxed and the respiration should be natural. Note the character of the respiration. If the res-

piratory excursion is circumscribed then you have a sick chest. This excursion in health is free and easy. Does one side move more freely than the other—then you have the sickest lung on the more feeble side. Are there any sunken areas over either lung, if there are it is the site of a previous pleuritic adhesion. Are the supra and infra clavicular fossae symmetrical and equal? If not the sunken one hides a disabled apex. Does either lung bulge and are the intercostal spaces obliterated? You probably have an effusion. Do the intercostal spaces pull in with the expiration? You probably have a pleurisy. Look at the contour of the chest and you will see written on it the pulmonary or rather the respiratory life history of the patient. Here you will find the round full chest of healthy function with the rhythmic rise and fall equally distributed. There you will find the pigeon breast of disturbed function and nutrition or the barrel chest of the asthmatic or perhaps the Rosary of a general nutritional disturbance. Is his general build robust, medium or delicate? Is his nutrition good, fairly good, poor, or emaciated? Is there lagging of either lung? This condition varies from an almost imperceptible hesitation to a condition of startling prominence. The droop of the shoulders and the prominence of the angles of the scapulae are part of the general picture in disease. Note the cardiac area. Is it bulging? Is its impulse violent, diffuse, expansile, faint, or imperceptible? Are the veins of the chest enlarged? Is there pulsation in the jugulars? Is there sweating in the axillae?

By palpation the lagging of a diseased lung is exaggerated. Rest the hands with equal pressure over either lung at apex and watch the inspiration. The feeble lung is not able to raise the weight of the hand with the rapidity of the well lung.

Place the ulnar surface of the palpating hand over the intercostal spaces of the

chest. Is the fremitus increased over any area? If so we have an infiltration or solidification. If the fremitus is absent, then we find that one of three things is present, first a thickening of the pleura from an old pleurisy, second an old process around the bronchial tree and the incident cicatricial contraction has pulled the lung from its normal parietal contact, third an effusion purulent or serous.

Auscultation is the high power of the human senses. So much is this true that Dr. Richard Cabot rather discredits the other senses, justifying his contention with the statement that it is a waste of time to use the low when we are going to use the high immediately. He can not say too much about the importance of auscultation but he is unjust to himself when he belittles his other faculties of observation. A transcendent genius may find his way unerringly by means of the ear alone but we ordinary mortals are often at a loss even when we employ all our faculties. However, auscultation is by far the most important means in physical diagnosis, and fully one half of the time devoted to the examination should be spent in auscultation. If you desire to use the stethoscope by all means keep it in condition. Recently at the City Hospital of one of our biggest cities, I saw a doctor using a Bowles with the diaphragm split nearly across and he assured me that it was all right. The tubes needless to say, should be without kinks and splits. It is just as necessary for the examiner to tune his ear as he begins to examine a chest as it is for the musician to tune his instrument. The normal vesicular breathing may be heard in fifth space mid-axillary line. Get the quality, pitch, and length of the inspiration. Compare with the expiratory murmur. This varies in health from the inaudible to one-fourth or one-fifth the length of the inspiratory.

Next fix the bronchial breathing in your mind. This can be best heard over the trachea, temporal or occipital bones in

health. Here the expiratory murmur is high pitched, loud and blowing and the length is equal to or greater than that of inspiration.

The type of breathing between these extremes, the broncho-vesicular, is normally heard at the margin of the sternum in the second right interspace. For all practical purposes these represent the necessary classifications. A further division of the breathings denotes a refinement of skill that serves no practical purpose.

We are not so much concerned in the normal vesicular breathing nor are we in the other types other than when they are heard out of their normal areas. Their significance in disease means solidification of a greater or less extent so that when they are heard out of their normal area you have a diseased area of the lung. The friction sounds of a pleurisy vary from a slight roughness in mild cases to a very harsh rub of incredible distinctness.

The transmission of the voice varies from the normal vocal resonance to bronchophony over solidified areas, to pectoriloquy which when alone means cavity formation, but with bronchophany it means solidification, and to aegophony which also means solidification.

There may also be present adventitious sounds that may tend to mislead, such as the muscle sounds which are heard over the pectoralis major while slowly flexing the biceps, sounds that emanate from the sternocostal articulations, skin or hair sounds, and atelectatic rales. The complete relaxation of the pectoral and neck muscles will eliminate the muscle sounds. Have the patient hold his breath and move his shoulders upward and downward, forward and backward and the sterno-costal sounds will be found to be independent of the respiration, apply water and the skin and hair sounds will vanish.

The atelectatic rales will disappear on full respiration or during the course of the examination. Near the base of the lungs



sounds due to the separation of the pleura from the chest wall in respiration will be heard but these have no significance. They are generally dissipated by deep breathing. They are known as marginal sounds.

Rales mean acute inflammation and their detection is of the greatest importance. Cabot says, "when definite fine moist rales are limited to an apex it is an almost absolute indication of pulmonary tuberculosis." The division of rales into moist and dry is unscientific for there is no such thing as a dry rale. From its very nature no rale can be dry. It means exudation and our concern is to determine the nature and cause of the exudation.

When the small tubes and vesicles of the lung are closely associated with or incorporated in a morbid process there is an exudation in those structures, as the air is expired from the lung they collapse or nearly so and we have their two sides adhering to each other. As the air rushes in with inspiration these adherent surfaces are torn apart giving rise to the sounds that are characterized as rales. In early tuberculosis this exudation is very slight hence we have the "shower" occurring at the beginning of inspiration. If the tubes are not thoroughly collapsed it will be necessary to make the patient employ the cough at the end of expiration so that the tubes will be collapsed.

For all practical purposes rales are fine, medium, and coarse. Multiply these divisions if you please and you will only arrive at confusion. The fine rales as their name suggests are fine, high-pitched like hair rubbed between thumb and fore-finger. They are heard during inspiration, they are all the same size, occurring in showers, seem to be close to the ear and persist or seem to be heard best after a cough. The medium rales seem to come from the bronchioles by the same process that the fine rales come from the vesicles. They are coarser and lower pitched than the fine rales, they are all of one size

and also occur in showers, they persist or may be heard only after cough, and persist after deep breathing. The coarse rales have a different origin. They do not originate in the vesicle or small bronchiole but they are caused by the air passing through the exudation in the large tubes. They vary in size from those approaching medium rales on the one side to those that give large coarse bubbling sounds in the larger bronchi. These coarse rales vary in size, may be heard during both inspiration and expiration, and the point of origin is not fixed and may disappear on cough.

The so-called musical rales or more correctly bronchi which are siblant or sonorous, they vary from high pitched squeaking to low pitched snoring sounds according to the size of the air passage, they change or disappear with a cough. They may be heard in old tubercular conditions that are comparatively dry or may be heard in other conditions of the lungs, not tubercular.

The sounds elicited in percussion are six in number: First, tympany, which is heard over cavities, over relaxed lung tissue above pleural effusions, in the neighborhood of tubercular consolidation, in bronchiectasis and in open pneumothorax.

Second, the normal resonance which has no significance other than as a standard of comparison.

Third and Fourth, slight dullness and dullness, are more or less frequently associated with the fibrosis of an old tubercular lesion but rarely heard over congestion or consolidation of an acute tubercular process.

Fifth, hyper-resonance is heard in emphysema. Sixth, flatness, which is heard over a pleural effusion.

The excursion of respiration is determined by outlining the lower border of the lungs in both forced expiration and forced inspiration. It will invariably be found the excursion is circumscribed on a diseased side. The normal excursion is about two inches, but an inequality between the

two lungs is far more important than the extent of the excursion.

The Isthmuses of Kronig at the apices are outlined by percussion and a variation of either in position or width is due to a peri-bronchial adenitis and a consequent distortion of the isthmus through cicatricial contraction.

In conclusion, one's ability to correctly interpret the findings and to visualize the pathology behind into a consistent picture determines the success of a diagnostician. It is not worth while to recognize the various sounds heard in a diseased thorax unless they denote a distinct morbid condition.

When he hears rales, he comprehends inflammation with incident structural changes. When he feels increased vocal fremitus, he thinks in terms consolidation. As his various senses hand in their bits of evidence his intelligence fits them till they are no longer abstract but are a coherent, consistent whole and the diagnosis stands out as clearly and as incontrovertible as does the conclusion at the end of a correct logical syllogism.

(I wish to extend thanks to the U. S. P. H. S. for the "Outline of Special Course for Student Officers," from which concise course I have drawn freely.)

### OBSTETRICAL CASE REPORTS.\*

J. F. Mixson, M. D.,  
Valdosta, Ga.

These case histories are given because, together, they take in most of the difficulties of version and delivery of the after coming head.

MRS. D. M. T., Bemiss, Ga. Age 34 Yrs. White. IV Para.

Has three children living, oldest 12, youngest 3. Her previous history was negative. The former labors had been normal vertex presentations—none of them of more than four hours' duration.

During this pregnancy, nothing out of the ordinary had been noted. Labor began at 8:00 p. m. About 1:00 a. m. her physician was called. He said he found her with moderate pains, but that

they soon stopped. At 4:00 a. m. he gave her ergot and quinine, which started up good pains and the membranes ruptured. Examining at this time, he found a shoulder presentation and attempted to push it back and bring down the head, but was unable to accomplish anything.

He called me at 8:00 a. m. I found the left arm and hand presenting, palm anterior, left shoulder impacted in the brim, cord prolapsed with no pulsation. The head was low on the maternal left, foetal back on right posterior, with the breech high in the fundus.

Immediate preparations for operation were made and anaesthesia begun.

The patient was put across the bed with hips on the edge in a modified Walcher position and cleaned up. The uterus was found tightly contracted around the foetus and dry so that uterine manipulation was extremely difficult, but the shoulder was pushed up and the left foot caught. (I could not readily feel the right foot). But the grasp of the uterine muscle would not allow any turning movement of the baby. Traction set up expulsive pains which pushed the shoulder and both hands into the pelvic inlet, so waiting for deeper anaesthesia, I applied a band around the left foot, held it down and as soon as the uterus relaxed, found the right leg, which was extended and twisted around toward the back, brought the leg around and securing the foot, brought both feet down and with the aid of external pressure on the foetal head, version was accomplished, and the baby delivered up to the shoulders. As happens in so many cases, the arms were extended. With downward and backward traction on the foetus with my right hand—my left hand was pushed up behind the anterior shoulder—brought the shoulder under the pubic arch and the arm forward across the face.

The posterior shoulder was easily delivered in the same way. The body of the baby was raised high over the pubis with a finger of my right hand in the baby's mouth, with very slight traction, together with suprapubic pressure, the head was delivered with little trouble.

The baby weighed about eight pounds. There was no laceration and the puerperum was normal.

MRS. J. V. S., Valdosta, Ga. Primipara. Age 17 Yrs. White. Slender, normal weight 106. Previous history was negative.

Her pregnancy had been uneventful and she did not consult a physician until I was called at 9:30 p. m. The membranes had ruptured at 8:00 p. m., the pains beginning about the same time.

Examination showed a breech presentation with cervix thinned and opening up well. The breech was pushing down fairly well into the pelvis. Pains were not very hard and coming about every 10 minutes.

Second stage began at 11 p. m. The pains were

\* Read before the Eleventh District Medical Society, Valdosta, Ga., Nov. 22, 1921.



good and at about five minute intervals. Progress was very slow, slight advance was made during the next four hours. Obstetric chloroform was begun about 1:30 a. m. Perineum was beginning to bulge at 3:00 o'clock, but the patient was tiring and the pains were hardly sufficient to cause any progress. Three minims Pituitrin was given. The perineum stretched without tearing and the breech was delivered. The legs were extended upon the body like a splint. There was no pulsation in the cord. The baby was very large and the shoulders were held up at the pelvic brim. The arms were extended. The shoulders were in the oblique diameter foetal back anterior and toward the maternal right. With downward traction upon the fetus with my right hand, my left was pushed up over the back of the right foetal shoulder and the shoulder brought under the pubic arch and the arm brought down. The baby was then held high up still toward the maternal left and the posterior shoulder and arm delivered in the same way. Forceps were ready and were put on and the head was delivered by traction and supra-pubic pressure. Delivery was completed at 4:30. The child, male, weighing 11 pounds, was dead. There was a deep, longitudinal depression over the sternum, due to the pressure of the legs and feet during the passage through the pelvis. Evidently this pressure alone on the vital organs, was sufficient to cause death, had there been no pressure on the cord.

The mother came around in good shape, the next day apparently feeling much better than I did. She had an uncomplicated puerperum. Her menstruation has been regular since and she says she is as well as before the pregnancy.

In this connection, realizing that the operation of version sometimes becomes necessary in the practice of any one who does general work, I feel that it is well that we refresh our memories on certain points connected therewith.

Indications for version are: Malpositions of the foetus, most frequently shoulder or transverse. In normal presentations when rapid delivery is essential for the life of the mother or child, as in prolapse of a pulsating cord, placenta previa, accidental hemorrhage or eclampsia, flat pelvis when the true conjugate is not under  $3\frac{1}{2}$  inches and the foetus is not over size, Sir James Y. Simpson having demonstrated years ago that the after coming head will go through a smaller space than a vertex.

Contra-indications: A tightly contracted uterus and high contraction ring with a very thin, lower segment. A dry uterus, or too much disproportion between the baby and the pelvic diameters.

Dangers for the mother are rupture of the uterus, shock, increased risk of sepsis, and lacerations; for the child, fracture of the arms or legs, dislocations of the shoulders or hip joints, obstetric paralysis, asphyxiation from the prolapsed cord or delay in delivery of the head.

Points to be emphasized in these cases are:

First; a smooth anaesthesia so deep that the muscles are relaxed perfectly. This point is very important, as it shortens the time, lessens the danger and makes the operation easier.

Second; perfect asepsis and antisepsis as for any major operation.

Third; an empty bladder.

Fourth; a well dilated and relaxed passage—cervix, vagina and perineum, as obtained by the modified Walcher position, dilating the perineum, vagina and cervix first with the fingers, then with the hand and closed fist until the fist can be drawn through the entire canal without encountering resistance. Minutes spent in this will save minutes that seem like hours when the head is being delivered.

Fifth; secure and make traction on both feet.

Sixth; look for prolapsed cord and see that the cord is free and loose.

Seventh; make no pressure on the uterus until the arms are delivered, as supra-pubic pressure before this time, pushes the head down favoring extension of the arms and chin.

Eighth; maintain flexion and make delivery of the head by a slight pressure with the finger in the child's mouth, firm supra-pubic pressure upon the head while lifting the body of the baby over the pubes.

Ninth; always have forceps ready for a quick delivery of the head if much resistance is encountered.

In this first case, the baby being already

dead, the dangers to the mother only, were to be considered. The perineum was relaxed, the pelvic outlet large and easily dilated, the cervix was effaced, the membranes had ruptured four hours previously and the waters had all drained away, the uterus was tightly contracted about the child. Two methods of delivery were to be considered. First, decapitation of the child with delivery of the body by traction on the arm and a subsequent delivery of the head. Second, version.

The first method was dismissed because of the fact that I had never done a decapitation and believed the adoption of the version would be most successful. The perineum and vagina were relaxed by former labors and the baby of a normal size, and the only difficulty—a tightly contracted dry uterus—was overcome as soon as anaesthesia was carried to the proper degree.

In the second case, owing to the unusual size of the baby, a cesarean section should have been done to save the baby's life, but at the time of my first examination, the breech was pushing down well into a thinning cervix and abdominal palpation did not give me an idea of the size of the child. The maternal soft parts stretched well and the difficulties of this case were due wholly to the disproportion between the child and the bony pelvis of the mother. The legs were extended—peeled up as they came into the pelvic inlet—the body splinted by the legs did not flex nor rotate normally; the arms also extended by the same peeling up process caused arrest of the head and arms at the pelvic brim. The shoulders were delivered by Potter's method, except that the body of the baby was not rotated for delivery of the posterior shoulder. Forceps were put on without any effort at delivery of the head without them.

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Next annual meeting of Association, Columbus, May 3, 4 and 5. COME!

## A PIECE ABOUT DOCTORS FROM "THE OLD VIRGINIA GENTLEMAN AND OTHER SKETCHES."

By George W. Bagby.

"In 'Abraham Page' or 'What I Know About Ben Eccles,' I forget which, there is the finest tribute to the country doctor that I have seen in any language. But how is it that the theme never awakened the muse of Goldsmith or Shenstone or the pencil of a genre artist of the first order. The rusty long-tailed overcoat tucked well under the legs, the tall, napless hat drawn down over the eyes, the ears protected by a comfort of a fiery red from cold, the beard white with snow or sleet, the compressed lips, the yellow leggings tied with green list, the thick yarn socks, knitted by some grateful hand, covering the boots, the gray saddle-blanket peeping out from under the sheepskin covered saddle, the black, medical saddlebags, slick with long using, the faithful horse plodding through frozen mire or plashing through the puddles and brooks—here are the elements for a dark winter day—but better still, these same figures of horse and rider dimly describe through the thick darkness of the winter's night, when the fierce icy gusts are pouring through the mountain passes, bending the naked trees by the roadside, and almost beating down the gray-haired rider, who must trust to his sure-footed steed; for who can see the way on such a night in the midst of such a storm? And then the entrance of the doctor into the sick chamber lighted up by the log fire, the sick woman in the old-fashioned bed, with valance and teaster, turning her hollow eyes to him with an ineffable look of gladness and of hope.

"What must be the thought of the good old doctor as he passes in through the tempest and the horror of thick darkness, often unattended and alone, oftener still knowing that he can never be paid even a pittance for all he is braving and enduring! Memories of his student-life come to him, and of his early triumphs and failures in practice, of his first married



days, of his own sick child left at home, and of the cozy chamber where his wife awaits his uncertain coming. Despite the rushing blast and the roaring mountain torrent he is fording, there come to him the cries of infants he has ushered into this world of pain, the last long inspiration and the wide ghastly yawn of the dying, the shrieks of bereaved women, and the suppressed, tumultuous sob of stricken men—these come to him as he courageously breasts biting wind and freezing rain to reach his patient. In the cold, gray dawn, his mission ended and the sufferer relieved, he sallies forth. The winds are still, the wide expanse of snow, unbroken yet by hoof or foot, stretches over the miles, no longer long, that lie between him and his home. As he beats onward the first smoke rises from the peaceful homesteads, and he hurries along to get his bright welcome and his wife's kiss, to snatch a breakfast and again to mount his horse and plod his daily round through snow and slush. And this is life to the country doctor and his fellows.

"Brave hearts, noble gentlemen, benefactors seldom fully requited, in my summer trips away from the city I never pass one of you without an inward bowing the head in reverence and the uttering of a silent benediction upon you. Ye are the salt of the earth, and your reward is assured in the bright hereafter.

"City physicians undergo less hardships and fatigue, but are subject oftentimes to a heavier weight of responsibility, than most of their country brethren. True, they have more and better appliances, and can generally call in consultation when needed more ability than the country doctor has at command; but endemics and epidemics sweep over the cities more often than the country, the ghastlier forms of schirrus and fungus are more prevalent there, and men of the greatest distinction, flocking to the cities, have more frequently to be treated. Moreover, the city physician is much more critically and jealously watched than his country brother. On the

other hand, the latter has too often to rely wholly on himself in cases of the greatest emergency, as in accouchments and capital cases of surgery. But I will not pretend to strike the balance between them. God knows that both classes have a hard enough time.

"To country and to city doctors I owe more than I can ever repay. I think that in this world it happens not seldom that they who would be princes in generosity, and give and give forever, are not only debarred from giving, but are doomed forever to receive; and I believe that in the great book of the recording angel there are pages upon pages filled with the credits of gratitude which found no voice for very shame of mere words of requital, and because the fitting deed could not go hand in hand with the warm will welling up from a profoundly thankful heart.

"However ill-paid and often unpaid physicians may be, they have the consolation of knowing that eminence and success in almost every other calling and profession is a selfish success limited in its good effects to the man and his immediate family; whereas in medicine great success is based, necessarily, upon great and widespread beneficence. To even moderately distinguished medical men, indeed to all but the very meanest and most worthless doctors, there must come thrills of pleasure so supreme that only the minister of the gospel who feels that he has been the instrument of saving a soul can hope to taste a pleasure at all comparable with it.

"Faithful keepers of the great seal of family secrets, trusty wardens of the ineffably precious health of our loved ones, silent and pitying witnesses of human suffering and human weakness, who shall rightly tell your worth, and with what patent of nobility shall ye be fitly honored! Statistics show that, man for man, your profession has fewer culprits than any other whatsoever. The simple figures, unfeeling and unflattering, bear testimony

to the lofty virtue of your calling. It is the hope of humanity, and there is reason for the hope, that the day will come when there shall be no more great lawyers, for there shall be no more litigation; when there shall be no great warriors, because wars shall have ceased; and when ever the need for great statesmen shall have passed, since mankind will have outlived the infirmities that demand legislative correction or restraint. But that day can never come on this earth when men will not die. A healthy race, obedient to the laws of right living, will require a few doctors (doctors truly, that their chief functions will then be the teaching of sanitary principles, and the mode of life demanded for the highest physical development); but these few will be crowned with the laurel that once rested only upon the brow of the soldier, and with the bays that were reserved solely for the jurist and the statesman.

"The mind makes many pictures, and this is one that often delights me. In the realm where there will be no use for doctors, but where many doctors shall be, it shall come to pass that beside the river of living waters, and under the trees whose leaves are for the healing of the nations, each upon his little knoll of emerald sward, the good doctors of this world shall be seated. Celestial airs, borne from the trembling wires of harps attuned to praise the Great Physician, and mingled with the divine odors of amaranth and asphodel, shall pass by on the soft, pulsing breeze. And around each doctor shall be the host, small or great, as the case may be, of them to whom he ministered on earth. They shall press forward with lips no longer dumb, with hands no longer afraid to tell by their clasp what even the lips might not like to say, and with eyes blazing full and warm from the unmasked soul. And from lips and hands and eyes shall come measureless requital. And the little ones, the little ones whose first wail and whose last sigh the good doctors heard, they shall come with purest kisses and cherubic palms, with such sweet

thanks and caressing as only the always-angels know. And then—the picture falls softly and slowly away."

## BOOK REVIEW.

**"Submucous Resection of the Nasal Septum."** By W. Meddaugh Dunning, M. D., Consulting Otologist, Fordham Hospital, N. Y. C.; Consulting Otologist, Manhattan State Hospital, N. Y.; Consulting Laryngologist, Ossining City Hospital, Ossining, N. Y.; Consulting Laryngologist, The Alexander Linn Hospital, Sussex, N. J.; Assistant Surgeon, Manhattan Eye and Ear Hospital, New York; Surgeon, Bronx Eye and Ear Infirmary, New York.

A most complete and comprehensive book describing the very latest technique in Submucous Resection of the Nasal Septum.

Dr. Dunning's extensive experience in submucous work especially fits him to write an instructive book upon this subject.

Its contents thoroughly covers The Nose—Breathing and Smelling—Common Septal Deviations—Surgical Procedure in Submucous Resection of the Nasal Septum—Special Surgical Procedure—Typical Case Histories and their Significance, The Saddle-Back Nose, etc.

The minutest technique of the operation and text is clearly visualized by twenty-five especially prepared drawings. It is the only recent book upon this subject.

While text books upon nose and throat work devote some chapters to submucous resection of the nasal septum, their authors cannot devote a sufficient amount of space to comprehensively describe and illustrate the complete technique of the operation and after-treatment.



# THE JOURNAL

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Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

## EDITORIAL DEPARTMENT

The next meeting of the Association will be held in Columbus, May 3-5, 1922.

### GEORGIA—THE FOCUS OF INFECTION FOR RABIES IN THE UNITED STATES.

That Georgia is the focus of infection for rabies in the entire United States is a startling but true fact. During 1921 there were 454 proved cases of hydrophobia in dogs in Georgia and over twenty-one hundred persons were forced to take the Pasteur treatment on account of being bitten by these. There were nine of the most horrible deaths known to mankind from this terrible but preventable malady. Truly, we are having an epidemic of this disease in Georgia. Since the establishment of the

Pasteur laboratory by the State Board of Health in 1909 more than fifteen thousand persons have been furnished this treatment, but the sad part about this is that, contrary to general belief, the Pasteur treatment does not always prevent the disease, and once it is established the mortality is 100 per cent. It is true that the treatment greatly reduces the mortality, but even the original Pasteur Institute in Paris reports a certain percentage of failures.

The disease is not confined to any one section of the state but is general. The deaths last year occurred in the following counties: Chatham, Clayton, Coffee, Crisp, Hall, Jackson, Muscogee, Randolph and Warren. We like to stress the decrease of such diseases as small-pox, typhoid and tuberculosis. However, rabies is not on the decrease but has shown a steady and gradual increase in Georgia during the past twelve years. This is one of the immediately serious problems confronting us at the present time.

Just what is rabies and how is it spread? It is an acute, specific, rapidly fatal disease transmitted to man by the bite of a rabid dog. No case of transmission from man to man has been recorded. The virus is kept alive in the dog and he is the carrier of the infection. It may be latent in him for as long as a year and then become active and produce the disease. The popular belief that dogs may automatically go "mad" during "dog-days" or in extremely hot weather was exploded long ago. Just as diphtheria may be spread by virulent bacteria in the throats of healthy carriers so rabies is spread by the latent cases in dogs.

No dogs—no rabies, but obviously we cannot do without this truest friend of man. What is the solution? How have other countries solved this problem? Rabies exists practically all over the world. Yet for fifteen years no case has occurred in Australia on account of strict laws. From 1898 to 1918 there was not a case in Great Britain. In 1889 they had 312 cases in dogs with 30 human deaths. A strict muzzling law was adopted and enforced.

By 1892 only 38 dogs developed the disease, but they caused the death of six people. Misplaced sympathy for the dog caused a repeal of the law. By 1895 they had 672 rabid dogs with 20 human deaths regardless of the fact that the Pasteur treatment had already been perfected and was generally used. This alarming situation caused the passage and enforcement of a strict tax, tag and muzzling law. In addition, a strict quarantine of six months was enforced against dogs coming into England. The result was that rabies disappeared until 1918 when during the war it was reintroduced by dogs carried in flying machines. It has been unknown in Denmark, Norway and Sweden for more than fifty years. It is still common in France, Belgium and Russia on account of the great number of domestic dogs and the difficulty of enforcing adequate laws.

What is the remedy for Georgia? 1. A tax and license—a tag with the owner's name and license number to be worn on the dog's collar. 2. A strict muzzling law requiring all dogs to be muzzled when outside the owner's premises except when actually hunting. 3. All stray, ownerless and unlicensed dogs should be shot. These are reasonable, practicable and humane measures.

It has been stated that the wealthy society women of our larger cities object to muzzling their pets, but we feel sure that once the important facts are placed before them that instead of opposing such a law they will be the first to advocate it. If a dog is worth keeping he is worth paying tax on.

Picture to yourself the horrors and suffering of the innocent victim of "mad-dog bite," literally "mad," glaring with widely dilated pupils, spasmodic convulsions, every muscle rigid, conscious to the last, yet realizing that he is "wild," held on his bed by many hands and finally chloroformed and kept profoundly asleep so that he may die. One such may be worth more to Georgia and humanity than all our dogs, however closely we may be attached to them.

"In addition to rabies dogs are responsible for other infections in man, such as hydatids, tapeworms (especially in children), round worms, tongue worms, and also fleas and ticks which transfer from dog to man and which may in this way transmit diseases and parasites."\*

### SYPHILIS IN THE INSANE.

Physicians who have been interested in the fight against venereal disease will be interested in the report of the Surgeon-General of the Army, recently issued:

"The rate for venereal diseases for white troops in the United States showed a very material decrease over that for the preceding year. This was especially gratifying in view of the fact that the corresponding rates showed a very pronounced increase after the Civil and Spanish-American wars when the war armies were demobilized and were replaced by volunteers for the regular army."

A tabulation of the enlisted men for the past 25 years shows that we had the highest infection in 1901, being 161.00 per 1,000; in 1918, the year the venereal laws were enacted, 149.60; in 1920 we had 6.85. The figures for 1921 are not yet available.

In our own state the physicians think that the disease is decreasing. We have the following letter from Dr. R. C. Swint, of the Insane Asylum:

"The percentage of males, whites, was less than half of last year and a decrease in white and colored females.

Race and Sex	No. Examined	Positive Wassermanns	Per Cent
White, M. ....	279	21	7
White, F. ....	291	20	6.8
Colored, M. ....	175	58	33.1-2
Colored, F. ....	175	47	26.4
TOTAL .....	939	146	15.5

The general average has come down from 20 per cent to 15.5 per cent, comparing 1920 and 1921. This is noted particularly among white males. The general practitioner and specialist must be doing better work with their venereals."

This is quite a compliment to the physicians of the State, showing a reduction

\* Rosenau; Preventive Medicine and Hygiene.



in one year of 41-2 per cent or a saving to the taxpayers of about \$10,000.

There is no excuse for Brain Syphilis, and if the people can be properly educated and the physicians will properly treat early cases, we will soon wipe out Brain Syphilis.

It is a coincidence that the actual saving to the State in the maintenance of the syphilitic insane is the same amount as the appropriation made by the recent legislature, and by the way, this was a cut of 33 per cent in this appropriation. Of course, it stands to reason that as much work cannot be done with \$10,000 as with \$30,000, so the results could not be expected to be as much in the future as in the past, but it will keep up the pace. If we can relieve by early treatment the asylum of 20 per cent of its inmates, room will be made for the deserving of our State without much more additional room. Is it better to spend a few dollars and prevent such conditions, or is it better to have Brain Syphilis and keep the unfortunate in the asylum at the expense of the taxpayers perhaps for years?

#### SHALL WE SOCIALIZE MEDICINE?

The members of the medical profession, for the first time in their lives, are beginning to realize the necessity of being on guard to prevent the acceptance of various schemes proposed ostensibly for the benefit of the public good but in reality offering a means of socializing the practice of medicine. We have been lending our support to the public health work of every description, and very justly so as long as the public health work has been conducted along the lines followed in years past. However, at the present moment there is a tendency on the part of many of the public health officials to so broaden the field of public health work as to make serious inroads into private medical practices and trample upon the toes of the doctors who depend upon their professional work for a living. In fact, it was demonstrated at the Boston session of the A. M. A. that what we had most to fear in much of the

so-called uplift work that is detrimental to the medical profession at large is the attitude of public health officials. They stood shoulder to shoulder for some action on the part of the A. M. A. that would be not only economically detrimental to the medical profession at large, but in many instances would prove positively vicious. By all means let us be on our guard as to who shall represent us in the House of Delegates at the A. M. A. sessions and who are to serve as officers of the parent organization. We have had quite enough of the Lambert stripe and satellites.—*Jour. Ind. State Med. Assn.*

#### CONSIDERING THE MAGNITUDE OF THE AMERICAN MEDICAL ASSOCIATION WE HAVE FAILED TO MARCH TO THE MUSIC OF THE TIMES.

Dr. D. E. Sullivan of Concord, New Hampshire, at the conference of the constituent State Medical Associations held in Chicago, November, 1921, and published in the *Journal of the A. M. A.*, November 26, 1921, said:

"In the immediate future there are grave questions that the American Medical Association must meet, for on it rests the great responsibility of compelling the public mind to think straight in matters pertaining to public health and the practice of medicine. In recent months, legislation has been enacted in all parts of the country in direct defiance of the expressed opinion of medical societies, yielding to the voice of people expressed through politicians, and the standing of the medical profession is nothing. All sorts of cults and 'isms' have been recognized, and the voice of scientific medicine stifled. If I read the times aright—and I am not a pessimist nor an alarmist—there are ominous and evil days for the medical profession unless we take hold of his job in man-like fashion. I believe we have got to adopt definite and concrete resolutions and then act on them. We should have a strong central committee selected without regard to

favoritism, politics or location, that will represent the best thought and minds of the profession in its everyday affairs. That will necessarily imply a good deal of expense. Can we not afford it? We cannot afford to do otherwise. Considering the magnitude of our Association, we have failed to march to the music of the times. We have allowed lay organizations to insinuate themselves into medical practices and really to undermine the very stability of public health organization. If my section of the country is any criterion of the rest of the United States, the general practitioner is much disgusted with the way these things have been handled by our profession in the past."

### IS THE GOVERNMENT LETTING DOWN THE BARS TO QUACKERY?

Chiropractic and the Federal Board for Vocational Education.

DOCTOR, WHAT DO YOU THINK OF IT?

What does the Medical Profession think of this governmental letting-down of the bars to quackery? What have the medical services of the Army and Navy, the Public health, or the American Medical Association done in protest against it?

The senate committee appointed to investigate government activities for the relief of former service men made, about the last of October, a report that was sweeping in its criticism of many things and its condemnation of others, inclusive of some hospitals. Among other recommendations it suggested the elimination of politics from appointments, cancellation of certain contracts, reduction in personnel and the necessity for a get-busy management of affairs; and all of this largely due to the fact, as reported, that only 5,000 ex-soldiers have been rehabilitated out of 388,000 applicants. A part of the fault is due to unsuitable and poorly managed hospitals, some of them, it is alleged, selected and the personnel appointed for political reasons. This latter charge may or may not be justified, but if it is warranted by the facts, it is simply another instance of

the fact that no sort of medical or hospital service can be effective when politically controlled.

The American physician does not care to embarrass any governmental board in its activities but we have been on the ground in Washington sufficiently, and have talked with capable physicians in governmental activities rather directly to the point, and hence we are in position to assert that these physicians have been embarrassed by political pressure in their work, and therefore it is not at all remarkable that special investigation by the senate finally became necessary and revealed the fact that too much politics was at the bottom of the whole trouble. Certainly a senate committee would not so report without abundant justification.

### Healing and Alleged Healing.

While it is not our purpose to minimize in the least any criticism directed against certain hospitals and their medical management, we do wish to submit a verbatim copy of a Government bulletin which sheds a little light on the subject of what politics does when it mixes up with medical affairs. The bulletin is as follows:

Information No. 97.

Information No. 81 rescinded hereby.

Federal Board for Vocational Education.

Division of Vocational Rehabilitation

Washington, D. C.

July 14, 1921.

From: Assistant Director for Vocational Rehabilitation.

To: All District Vocational Officers and Others Concerned.

Re: Chiropractic, Training in (Of. Information Nos. 91 and 94.)

1. Under the conditions set forth below, district vocational officers are authorized to place men in training for the practice of chiropractic. Some districts, it will be noted, have optional opportunities.

Districts Nos. 1, 2, 3 and 4

Eastern College of Chiropractic, New-ark, N. J.



Districts Nos. 4, 5, 6 and 7

Universal Chiropractic College, Pittsburgh, Pa.

Districts Nos. 7, 8 and 14

National School of Chiropractic, Chicago, Ill.

Districts Nos. 9, 11, 12, 13 and 14

Palmer School of Chiropractic, Davenport, Iowa.

Districts Nos. 10 and 13

St. Paul College of Chiropractic, St. Paul, Minn.

2. Before placing a man in training for the practice of chiropractic, the district vocational officer shall secure a written statement from the man, embodying the following points:

(a) That he is choosing his course on his own initiative and responsibility, and will not in any way look to the Board for assistance in placement.

(b) That chiropractic may be legally practiced in his state of residence or in the state in which he contemplates residing after the completion of his course. In the latter instance satisfactory evidence will be required to support trainee's intention of change of residence.

3. District vocational officers are directed to secure from the Medical Examining Board of each state in their districts, a statement as to the legal status of a practitioner of chiropractic. A copy of this statement must be filed in Central Office on or before August 10. This is asked for in order that Central Office may have complete information concerning legislation that has become effective during the year 1921. No man should be put in training for the practice of chiropractic who is a resident of a state in which such practice is prohibited by law except under the condition stated in subparagraph (b) under paragraph 2 hereof.

4. Whenever possible men should be dissuaded from taking up this work, but those who insist upon being trained for it will be assigned in accordance with paragraph 1 hereof. If they desire to be transferred to a designated school otherwise

than as listed, they must pay their own traveling expenses.

5. The district vocational officer Dist. No. 8 will negotiate a contract at regular rates with the National School of Chiropractic, Chicago, Ill., the district vocational officer, Dist. No. 10, will negotiate likewise with St. Paul's College of Chiropractic, St. Paul, Minn., and both district vocational officers, numbers 8 and 10, will provide all other district offices with catalogues of the two new schools designated herein. The regular procedure in regard to transfers will be followed, except as noted in paragraph 4.

R. T. FISHER,

Assistant Director for  
Vocational Rehabilitation.

Doctor, note especially paragraph 4, which "lets the cat out of the bag" for it is stated to us by gentlemen in position to know, but not by officials, that this chiropractic training was forced on the Board by congressional pressure and it is quietly hinted that there was much futile anger engendered by the fact that the hands of the Board were forced by politicians.

#### WE WONDER

1. What do the medical services of the Army and Navy think of this governmental letting down of the bars to quackery?

2. What does the United States Public Health Service think of it?

3. What does the American Medical Association think of it, and what did it do to protest against it?

4. Doctor, what do you think of it?

#### A LESSON FOR US.

Some man is ambitious to be elected to the Legislature. He tells his physician, who is not interested and who smiles quietly to himself, believing that Mr. Man has no chance for election. Mr. Man approaches other physicians. Nothing doing!

Then a chiropractic is approached. Business of handshaking and good fellowship. Mr. Chiro lines up Mr. Man into his way of thinking and secures the active help of all chiropractics and their friends in the dis-

trict. Furthermore, the Chiropractic Association advertises regularly in the newspapers, and says a good word to the editors for Mr. Man. Don't forget that Mr. Chiro is exactly the kind of man that loves to break in as a political worker, while Mr. M. D. seldom takes an active interest in politics.

Mr. Man is elected and becomes The Honorable Frank Man. Then, when a bill comes up in the legislature granting all sorts of powers to a Board of Chiropractic Examiners, what does the Hon. Frank Man do? Go ask the Federal Board for Vocational Education.—T. S. B.—American Physician, January, 1922.

Dr. Allen H. Bunce,

Atlanta, Ga.

Dear Doctor:

No doubt you have read in the Journal of the A. M. A. of January 7, 1922 the article entitled "A Visit to a Chiropractic School," by Dr. George Dock, of St. Louis.

Am of the opinion that it would be a good idea to have the attention of the doctors of Georgia called to this article and have them bring it to the attention of their county representative; am fully persuaded that if they could be enlightened as to the true facts of the training and practices of the chiropractic we would experience no difficulty in having more rigid laws passed in regard to their practicing in our state.

With best wishes and kindest regards, I am,

Yours very truly,

COSBY SWANSON.

#### A VISIT TO A CHIROPRACTIC SCHOOL.

George Dock, M. D.

St. Louis.

Criticism of medical sects or medical sectarians by a physician is of dubious value. Sectarians will accuse him of bias, of working "pro domo," and many disinterested persons will do the same. Few in the profession have an opportunity of seeing the work of sectarians, and so I have prepared this article, based on a visit I made in the spring of 1921, as well as on a rather thorough study of catalogues.

Certain important facts seem not sufficiently

realized. The details of belief in or practice of a medical dogma form the smallest part of the problem of sectarian medicine. A much more serious thing is the possibility of developing schools and graduating low grade practitioners of medicine in large numbers; of carrying a great but insidious advertising campaign; of giving a large part of the population false but attractive ideas of physiology and hygiene; of complicating and corrupting medical practice laws, already sufficiently handicapped.

The misunderstandings about the situation were impressed on me during the campaign for a separate chiropractic examining board in Missouri in the legislative session of 1921. In the hearing before the Senate committee it was depressing but also amusing to hear the sectarian misstatements. The legislators were assured that chiropractors did not practice medicine, but in the next breath were told how they cure all kinds of diseases in very large numbers of patients. The misstatements about comparatively elementary facts that were made would hardly be believed by any one who did not hear them, and yet such was the skill of the advocates of chiropractic that it was the impression of a number besides myself that if the matter had been put to a vote of the large and representative audience, the chiropractors would have won by a great majority. The common misunderstanding was again revealed when a number of us went to a hearing before the governor. The question was seriously asked by intelligent people whether osteopaths and chiropractors should not be allowed to practice in cases for which they have a special capacity. I had known before how hard it is for people to understand that none of the practitioners of these sects possess any therapeutic secret by reason of their training, and while some individuals among them may have skill in some line, it is purely individual and not the result of sectarian teaching or practice. Contrary to a common belief, the osteopath is not likely to be a good masseur or bone setter, or to perform miracles, and still less the chiropractor.

My experience with sick persons who had been in the hands of chiropractors had given me a very poor impression of that sect; but with the intention of getting a more definite idea of the subject I visited the "fountain head" of chiropractic, "the mother school"; namely, the Palmer School, of Davenport, Iowa, in the spring of 1921. I went without announcing myself, in company with a friend very familiar with medical study and medical schools, and I will give as accurate a picture as possible of what we saw and heard. I do not wish to convey the idea that I consider myself an authority on chiropractic study or teaching, but wish to give a truthful account of a very large source of supply for those who appear like physicians. It is true, in a sense, that



the method of study followed and the methods of practice inculcated are not worth the consideration of intelligent people; yet the fact that more than 3,000 potential voters spend a number of months and several hundred dollars apiece in getting the so-called training in a single school is a matter worth the consideration not only of physicians, but also of hygienists, economists, psychologists and jurists.

#### Buildings and Equipment.

The buildings of the school are modest in comparison to the size of the classes, but are rapidly expanding. The home of the president is the first thing one sees on approaching the institution. The house looks as if it might have been built originally for a Davenport magnate in the seventies, with a recent addition around the side, giving it a very spacious and comfortable appearance. In the rear is a frame garage, originally no doubt a stable, with some Japanese bronze storks, looking rather incongruous, at the entrance. Next to a neat "memorial building" used for classes are the headquarters of the school, in an old building, partitioned off into numerous small rooms and narrow corridors, with a glass-fronted addition, which serves as a lobby. In the latter is a news stand, conducted by a blind man, who also sells bones, especially vertebrae, for from \$20 a set up. In the middle of the day, part of the space is occupied by a number of women, who sell cakes and sandwiches. Beyond this is a large building containing a cafeteria, with a roof garden seating 1,500, and next to it a concrete building said to have 7 acres of floor space.

The secretary's office, just inside the old building, is hardly large enough to turn around in; but the secretary, a very genial and energetic man, gives an air of expansiveness and hospitality to the premises. Nearby is a small room used as a book store, but with very few books for sale.

At certain times in the day a tour of the institution is conducted by a very enthusiastic guide. The main demonstration is the "osteological laboratory," a small room almost filled with cases containing many remarkably fine specimens of bone lesions, especially kyphosis, scoliosis, spondylitis deformans, caries and repair of diseased or broken vertebrae, ribs and other bones, and a few comparative anatomic specimens. The guide explains the theory of chiropractic by means of the narrowed foramina in the scoliotic specimens, showing how the "vital force" that should go through the nerves has difficulties. He also talked much about the "innate mind," which he was confident was wholly independent of the body.

The cafeteria, which is said to be capable of feeding 1,200 people in an hour, has many individual effects in construction, such as a well

with an "old caken bucket," rustic trimmings and many mottoes of the same kind that ornament some other parts of the buildings. They preach a Hubbardesque philosophy in rather wearisome aphorisms. Another striking effect is produced by colossal busts of the founder, D. D. Palmer, of the son "B. J.," and of the wife of the latter, often spoken of as "Mabel," who introduces a much needed pulchritude into the scheme.

There are many class-rooms. These are for the most part large, seating from 300 to 500. Some of them are in a loft building, and the class-rooms open into one another so that one may have to go through one or two classes to get to the one desired. These rooms are all flat, with low ceilings. The seats are numbered, and the attendance of each class is checked up by girls who go from row to row and note empty places, very few as a matter of fact.

In a room on the ground floor are machines for practicing the "chiropractic thrust." These are made of pieces of gas-pipe with a cap on top and a fairly strong spring inside them. The machines are used at odd times as well as by classes, and one can see many students through the day getting the "form" that is the essential part of the treatment. The "thrust," "a quick spontaneous (!) thrust, with the hand upon the bony process of misaligned vertebrae," is made by placing the pisiform bone of one hand over the cap, or vertebra, in the patient, then putting the other hand around the wrist, with as much care as one sees in young golf players, and then pushing down the hand with a vigorous thrust. The only other thing that could be considered a laboratory is a small roentgen-ray installation labeled "Spino-graph Department," where a special course is given for one month, at a charge of \$50.

In one of the buildings is a printing establishment, "The Prettiest Printing Plant in America," and there is also a "Private Branch Post-Office and Express Service."

#### Student Body.

In speaking before the Senate committee, Dr. Palmer claimed 3,000 students. At my visit in April the usual statement was 3,200, with the frequent addition that within a few months there would be 5,000. These are said to come from all over the world, including such diverse countries as Bulgaria and New Zealand. "With one exception, its doors are open to all races" (catalogue). The large majority look as if they had come from the smaller towns or villages of the Middle West, and vary greatly in age. While the majority are young men and young women, there are not a few middle aged men and a considerable number of women, not merely of certain age, but certainly aged. One striking thing about these students is the friendliness, earnestness and conviction of all. They show no objection to the appearance of a stranger; speak enthusiastically

of the work; recommend treatment; answer questions freely, and are as attractive a body of students as I have ever encountered. It was not difficult to discover, however, that most of them had not bridged the stage between the grammar school and the course that in medicine leads to the doctor's degree. The farm, the barber-shop and the hotel dining-room or kitchen would seem to be the more natural work places for a great many. Some, however, seem to have come from the teacher's platform, and a few from normal schools or small colleges.

#### Teachers and Teaching.

"About one hundred and fifty regular full-time, salaried employees" are "engaged in the work of our many departments" (catalogue).

I went from class-room to class-room, and from these one would never realize that the chiropractor had anything to do with medicine as a biologic science. There is no laboratory study or teaching. The nearest approach to medical study probably is in the anatomic lecture room, so-called. This is conducted by Mrs. Palmer, "pleasantly styled his Better Two-Thirds, the wife of Dr. Palmer" (catalogue). In her class-room were at least 300 students as counted by seats, all filled. Much might be said of Mrs. Palmer personally. She commands the class through her presence and personality, and is urbane but energetic in manner. The exercise of the day consisted in a parrot-like recitation of the names of all the veins from the toes to the heart. Questions were put to one student after another in the numbered seats. Rather more than half of them indicated that they could not answer the questions, and sometimes half a dozen in a row would miss the same question. There was no thought of anatomic relations, function or anything more than names. Although the teacher evidently had memorized the names without omission of any, no matter how unimportant, she gave the impression of being either self-taught or taught by an inexperienced teacher. Her pronunciation was quite lawless, so that she might begin pronouncing words like posterior, saphenous or azygos in a conventional manner, but if a student mispronounced it she would then take up the new way—"Oh yes, 'saph' enous, 'posterior,'" etc. She would frequently help out the answers when the responses were too slow by repeating a lot of names, such as: "O yes! then, muscular, cutaneous and articular." The catalogue states that work in dissection may be taken at times, but members of the class said they had never seen it, and some said that dissection was illegal in Iowa (not a fact).

A great feature in the school is the "pit lecture," so-called, given by the head, familiarly spoken of as "B. J." The lecture room, which has about 600 seats, was filled, with a large part of the standing room occupied. There is a stage

running across one end on which were a number of patients and assistants. The exercise was extremely interesting. A patient would be brought to the front of the stage and the history read. This gave about as much as is included in the primary complaint in an ordinary history, for example: "sour stomach, deafness, insomnia"; "rheumatism of shoulder"; (a young man) "mentally exhausted and physically rotten, has to take exercise to keep from getting worse." The diagnosis was announced without any further examination; sometimes by a member of the audience, and consisted in a rapid-fire statement of a given vertebral dislocation. Sometimes, when the professor announced the diagnosis, a voice from the rear would say, "Why not such and such vertebrae?" "Why so?" inquired the teacher. "Because it gives so and so." The teacher would good naturedly add this to the diagnosis.

The spirit in all classes was very interesting to see. Great good nature and hilarity were displayed in all the rooms. Even in the pit lecture there was much noise and coughing and laughing and even talking. The manner of the president was usually jocular, sometimes quite familiar. After a bad but pardonable guess at an old woman's age he gave the next one correctly, at which a voice from the audience called, "Did you see the paper, B. J.?"

Another interesting exercise was a treatment clinic. This was also in a very large room with a stage, and on the stage and front part of the floor were chiropractor treatment tables. These are so arranged that there is an open space between the two parts of the table; the patient lying with the chest on the upper one and the hips on the lower one. At the Senate hearing I understood Dr. Palmer to say that they had 3,000 patients in the clinic daily. In Davenport, however, the number was usually given as 1,700. Many of these are members of the class. The names and apparently the diagnoses are entered in books, and the clinic treatment is the whole thing in most cases; but in a few, a fleeting palpation of the spine was made. Out of several hundred people the day I was there, there was only one who looked as if he might be sick—a man with a severe kyphosis and paraplegia. Many of the "patients" looked remarkably well, having very much the appearance of the people one can see at Christian Science meetings plus the pink skin and plump panniculus revealed at the treatment clinic and quiet different from those in any outpatient department. That the treatment gives a certain satisfaction one could note by the expressions of many of the patients, who had an appearance almost of ecstasy from the moment of lying down on the table.

While the actual method of chiropractic treatment may be well known, I will describe what I saw. The patients come prepared to have the



back exposed. The men have their shirts on backward. To the women, with the present style of dress, it was a simple matter to expose the part of the back necessary: in some cases all from the lumbar region up. On certain days so-called "coccygeal adjustments" are given. I happened to be there on the off day, but can imagine the situation.

The patient lying down, a rapid palpation is sometimes made, very often in fact none at all, as the site to be treated is already known; then the left hand is arranged for the thrust, the other hand fastened around the wrist, and a rapid push downward is made, the whole thing taking much less time than it takes to describe. A girl student sitting next to me, who said she had often been adjusted, said the palpation and thrust had no particular local effect, such as tickling. Those who imagine that the treatment is used only for local diseases should hear the recommendation of the effects in general malaise, as from being up too late at night; the value of the treatment for workmen, and its use in blindness, deafness, cancer of the stomach and liver, smallpox, measles, influenza, etc.

#### Inconsistencies.

There is a curious contradiction between political statements about the course and the facts. Before the Senate committee it was frequently stated that the course was one of three years of six months each. In Missouri House Bill No. 113, providing for a state board of chiropractic examiners, it is stated that the candidate must be "a graduate of a chiropractic school or college which teaches a course of not less than three years of six months each, or its equivalent." Many wondered what the students did in the intervening six months' period. As a matter of fact, there is no such period; the session is eighteen months continuously, but new terms begin every four months. According to the Palmer catalogue, students get from "six to twelve months' actual practice." The catalogue, p. 33, says: "The course is divided into eighteen consecutive calendar months comprising three collegiate years of six months each, all of which are continuous, there being no vacation periods." This somewhat original treatment of time extends to the school hours. There are said to be 4,103½ class hours in the scientific course, or with the spinographic course of 1,189 hours and the salesmanship course, 5,335 class hours. This would seem to exceed the hours in a four year medical course, except that a chiropractic hour is not an hour, but a half hour.

The freshman course is four months. "After two months in sophomore class they are entered as sophomore adjusters, and at the end of eight months are promoted to junior class and entered as junior adjusters. . . . After being pro-

moted to junior adjusters, students are granted permission to solicit patients outside of clinic, which cases they may adjust for pay" (catalogue, p. 19).

Before the Senate committee it was stated that chiropractors do not treat obstetric cases, and in House Bill 113 obstetrics is not named among the subjects taught. The catalogue states (p. 23) that "obstetrics is taught sufficiently to qualify the student to pass any of the state examining board's examinations in midwifery in any state where this is required. . . . Antiseptic precautions" are taught, yet much was said in the Senate hearing about the time wasted by medical students in learning about poisonous drugs, which chiropractors never use.

Gynecology is taught, though not provided for in House Bill 113, and it is said (catalogue, p. 27) that a great proportion of cases of this character enter into the average chiropractor's practice.

A course in salesmanship is included in the course, for "despite the merit of an offering, the individual may not be successful because of his personal inability to sell it" (catalogue, p. 31). The synopsis of this course is interesting, but too long to quote (catalogue, p. 32).

#### Financial Aspects.

As the fee for the course for a single person is \$350 "spot cash," \$400 for deferred payment (not less than \$150 initial payment, the balance at interest), or husband and wife \$437.50 and \$500, respectively, it can be seen that the industry is an important one from the financial standpoint. This is not mentioned as essentially bad, but it must have some bearing on the whole movement for organizing irregular schools.

How precarious the business may be appeared from a visit to another chiropractic school in Davenport, with a beggarly array of empty benches. I have mentioned in another place<sup>1</sup> the tendency for such institutions to move between two days to another town, sometimes another state. But one institution with 3,000 students paying large fees can easily carry on an extensive propaganda, as by full page advertisements in city papers, meetings, defense of chiropractors tried for breaking practice laws by corps of attorneys, and in hearings before legislatures.

#### Conclusion.

So one must question, whether, as stated in a court decision, chiropractic is an innocent business. No one can object if a healthy or sick star, either of the opera, stage or screen, a novelist, a critic or an editor, a banker, a merchant, a physician, a society leader or an athlete wishes to be adjusted. The case is different in a child with measles, diphtheria or meningitis, a pregnant woman, or a patient with a malignant tumor. When we think of this it seems important

that up to last winter chiropractors claimed that fifteen states and one territory have chiropractic boards, not insisting on medical training; that eight states give legal recognition, and that twelve supreme courts hold that "drugless healers" are not practitioners of medicine. But, as I intimated in the beginning, the matter is not one to be settled by physicians. So I shall omit further discussion.

1. Dock, George. Physicians and Healers, South. M. J. 11: 1 (Jan.) 1918.

### MARSHALL FORD MORRIS 1894—1922.

Ford Morris is dead. The Recording-Secretary called him and he went—no warning, no delay. Thus he always responded to duty's call. Though suffering for years from a mitral stenosis he went about his work with a cheery smile and a kind word. Few of his intimate friends knew of his physical condition.

He was a student. He was interested in the Journal. His abstracts and articles were error-proof. This was one of his predominating characteristics—always working, reading, studying, both books and patients, writing, revising, correcting and re-writing. Perfection was his aim.

He was ambitious—but willing to pay the price for success by hard, consistent, tedious, painstaking work. He never knew defeat.

He was born in Atlanta, attended the Formwalt Street School and graduated at the Boys' High School at the age of fifteen. He studied two years at Mercer and then entered the Atlanta College of Physicians and Surgeons, from which institution he received his M. D. degree in 1916. After spending two years in New York and Boston hospitals, he returned to Atlanta to practice his profession. He was unable to get in the army during the war on account of the malady which caused his untimely death.

He was a member of the Kappa Psi and Phi Delta Theta Fraternities, founder of the Medico-Social Club and a member of the staffs of the Grady and Georgia Baptist Hospitals and the Davis-Fischer Sanatorium and visiting physician to the Atlanta Anti-Tuberculosis Association.

Only twenty-seven! The tragedy of it! He found time to take an active interest in all medical affairs, to write numerous articles for the leading medical journals—from the A. M. A. on down the list. What a short career—only three years—yet how productive. In the brief span of his life he set an inspiring example difficult to follow. We will miss him. We will turn down an empty glass.

To his wife and baby, mother, brothers and sisters we extend our deepest sympathy.

He is already on that long journey which we must all travel.

### RESOLUTIONS OF THE FULTON COUNTY MEDICAL SOCIETY CONCERNING THE DEATH OF DR. M. FORD MORRIS.

In the death of Dr. M. Ford Morris the members of the Fulton County Medical Society feel that they have lost one of their beloved members, a young doctor who showed every promise of a brilliant future.

Therefore, Be it resolved that this testimony of their sorrow and sympathy shall be placed on the minutes of the Society and a copy sent to his bereaved family.

JAMES J. CLARK, Chairman,  
C. W. ROBERTS,  
R. A. BARTHOLOMEW.

### A TRIBUTE TO THE LIFE AND CHARACTER OF DR. W. L. FITTS.

In complying with your request to give a brief history of the life of Dr. William Lee Fitts, I can do no more than express my feelings toward him and my personal estimate of his worth to us as a friend and brother. Though Dr. Fitts was neither saint nor superhuman, still I have not the words to truly and faithfully portray his life and character to you as it was; or as I would like to.

William Lee Fitts was born near Edwardsville, Ala., Nov. 3, 1861. He came to Carroll County with his father in 1864, just after the close of the Civil War. He received his early literary training in the high school at Carrollton. After this he



entered the Atlanta College of Physicians and Surgeons, from which he graduated in 1883. He then returned to Carrollton to practice his chosen profession; but not being content with his qualifications and with an ambition to give the best always, he later pursued his studies in the clinics of New York.

For a number of years Dr. Fitts enjoyed possibly the most lucrative practice of any physician in Northwestern Georgia. He held many places of both trust and honor. For a number of years he was surgeon for the Central of Georgia Railway at this place. Though he was burdened with such overwork he was always ready to give his time and talent to medical science. Soon after locating at Carrollton, he helped organize the Carroll County Medical Association, and, at different times filled with honor every office within its realm. For about twelve years he represented the Fourth District as its councilor to the State Medical Association, and was finally honored by the highest gift within the power of the Medical profession of the state, that of being made president of the Medical Association of Georgia which station he so faithfully filled that upon retiring from its presidency he was presented with a beautiful loving cup from its members as an appreciation of his services.

Though his record as a physician and public servant was indeed enviable, still it was in private life, in his relation with his family, friends, neighbors, in fact, all with whom he came in contact that he shone brightest and best, for here his true worth was most clearly revealed. Here, under circumstances, where the conduct of daily life is little influenced or warped by self interest and aim, or selfish ambition; where his words and actions came from disinterested motives, he clearly revealed his true character as a man. It was out of the heart of such a character that evolved that spirit of love for justice and truth and brought into being that boundless charity, that unflagging benevolence, that all-embracing sympathy which glori-

fied his life and fruited into that Christ-like beneficence and service to others. In his life all those minor graces and charms were manifested in his charity, sympathy and regard for the feelings and sensibilities of others. The numerous personal sacrifices and service to all distinguished in him the character and conduct of a true Christian gentleman.

But, on the morning of September 8, 1921, the angel of death received the dread mandate to strike him from the roll of the living and he passed into the shadowy mysteries that obscure and deepen the starless night of death.

Though he has passed from mortality and now lives in the immortality of the spirit, yet, he is about us and near us still; for his words of love and his kindly deeds of service still remain to hallow his dust and bless the living with their glory and fragrance.

D. S. REESE,  
Committee.

Approved by the Carroll County Medical Association, Carrollton, Ga., Feb. 21, 1922.

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### THE ST. LOUIS MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The arrangements of the St. Louis profession for the meeting places for the session of the A. M. A., which is to be held in their city May 22-26 next, are singularly fortunate and convenient; never has the Association been so well favored in this respect. The district in which the meeting is to take place is at the west edge of the business section of the city, easily accessible from all directions by street car or otherwise and not more than fifteen minutes street car ride from the most distant hotel. The grouping of the meeting places is so compact that should one walk from the Registration Building (Moolah Temple) to the farthest hall it can be done in ten minutes or less; from section to section is a matter of from one to five minutes. The convenience of the location and arrangements of the different halls is more outstanding than in any other city

in which the Association has met, and a decided improvement over the accommodations which were had at the meeting in St. Louis, 1910.

The registration office, post office and commercial exhibit is to be in the Moolah Temple (Shrine), a beautiful and commodious building on Lindell Boulevard, two blocks west of Grand avenue. At the other extremity of the group is the Odean, the home of the St. Louis Symphony Orchestra, with a main hall which seats better than 2,000, and several lesser halls. The main hall will be used for the opening session. Its acoustics are particularly good and suited to our purpose. The Sections on Practice of Medicine and of Diseases of Children meet here. In the assembly hall of the same building the Sections on Pharmacology and Therapeutics, and on Pathology and Physiology will meet. (It will be noted that there has been an aim to foregather closely allied sections.) The Sheldon Memorial, a very beautiful new hall on Washington avenue, one-half block west of Grand avenue, which most admirably meets all requirements, will be the meeting place of the Sections on Ophthalmology, and Laryngology, Otology and Rhinology. The Section on Surgery, General and Abdominal, and on Obstetrics, Gynecology and Abdominal Surgery, will be held in the Third Baptist Church on Grand avenue, a situation well suited to the demands. The Sections on Orthopedics and Nervous and Mental Diseases will meet in the Law School of the St. Louis University, on Lindell avenue, a few steps west of Grand. The hall easily seats 500 and is both comfortable and convenient. Dermatology and Syphilis and Urology will use the large Union Methodist Church, on Delmar avenue just west of Grand, which meets every requirement. The Sections on Gastro-Enterology, Proctology and on Preventive Medicine will use the large hall in the Musicians' Club on Pine street, east of Grand avenue, and next to the building of the St. Louis Medical Society, where the House of Delegates will hold its sessions. The Section on Stomatology is as-

signed to the assembly hall of St. Peters Parish House, one block west of the Grand on Lindell. Immediately in this district will be found three of St. Louis' most important clubs, the St. Louis, University and the Columbian. Restaurants catering to every grade of patronage are numerous in the district and precautions have been taken to insure that normal rates continue during the meeting.

The St. Louis profession is preparing for an unusual attendance; hotel reservations are coming in rapidly, but it is purposed that even the late-comer shall be comfortably housed. The wise traveler, however, makes his reservation as early as he finds its possible. Dr. M. B. Clopton, 3525 Pine street, St. Louis, is chairman of the Committee on Sections and Section Work.

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#### RESOLUTIONS ADOPTED BY OCMULGEE MEDICAL SOCIETY.

Our last legislature, in its efforts at economy, cut the appropriation for our State Board of Health a little better than \$2,000.00 per month or more than \$24,000 for the next year as compared with this.

The natural increase in population and the advancement of Medical Science, especially laboratory diagnosis and the productions of the serums and vaccines, is placing yearly heavier demands upon our State Board. Therefore, a reduction in appropriations means a curtailment of the excellent services our efficient board is rendering the doctors throughout the State and through them the public.

Consider what the withdrawal of Diphtheria Antitoxin would mean to infant mortality. Before its use our death rate was about 90 per cent, while now it is less than 10 per cent. What a calamity would result to humanity were it not for the use of Salvarsan. What the typhoid inoculations have done in the curtailment of that disease, and so with vaccination for smallpox, the serum for the treatment of rabies, etc.

These, with various other products from our State Laboratory, will necessarily have



to be withdrawn or materially curtailed with reduced appropriations.

The efficiency of our State Board of Health can not be questioned. It is composed of men of the highest type of citizenship, thoroughly proficient in their several departments, and at all times ready to aid the doctors of the state in their efforts to relieve suffering humanity and prevent the spread of disease, and are endeavoring to build up a system of vital statistics to compare favorably with that of any state in the Union.

Therefore, be it resolved, That the Ocmulgee Medical Association, in convention, do earnestly beg of our Legislature, when next assembled, to support this worthy and humane institution with sufficient appropriations of funds to carry on the work before them.

Be it further resolved, That a copy of these resolutions be sent to the Governor asking his sanction and support of our request, and that he use his best endeavors in behalf of suffering humanity by sustaining our State Board of Health.

Also, that a copy be sent to the Secretary of the State Board of Health, asking him to publish them in the Journal of the Medical Association of Georgia, and requests every local society in the state to urge upon their representatives the importance of the Legislature standing by and supporting our State Board in their efforts to promote the progress of scientific medicine and stamp out diseases in Georgia.

W. A. MATTHEWS, Chairman,  
JAS. M. SMITH,  
J. J. STONES.

#### MEETING OF NINTH DISTRICT SOCIETY.

Semi-annual meeting Ninth District Medical Society was held at Toccoa, Ga., Wednesday, March 15, 1922, at Stevens County Courthouse. Guests of Stevens County Medical Society. The meeting was called to order by the president, Dr. H. E. Crowe, at 11 a. m. The following program was rendered:

Invocation—Rev. Felton Williams.

Address of Welcome—Dr. J. H. Crawford.

Response—Dr. O. N. Harden.

#### Scientific Papers.

Report of Cases and Demonstration of Treatment—Drs. Downey and Whelchel.

The Gall Bladder and Some of Its Affections—Dr. Frank K. Boland.

The Cause, Prevention and Treatment of Puerperal Eclampsia—Dr. L. Sanders.

Memorial to Dr. M. F. Nelms—Dr. F. M. Hubbard.

An address by Dr. Joe P. Bowdoin, of the State Board of Health.

Address by Dr. T. F. Abercrombie, Commissioner of Health and Secretary State Board.

The Classification and Treatment of Asthma and Chronic Bronchitis—Dr. Allen H. Bunce, Atlanta.

Tuberculosis—Dr. Edson W. Glidden, Supt. State T. B. Sanatorium.

Chronic Nephritis—Dr. C. L. Ayers.

Luncheon was served at 1:30, Swift Hotel. During this recess the following officers were elected for the coming year:

President—Dr. J. D. Mauldin, Gainesville, Ga.

Vice-President—Dr. J. R. Simpson, Gainesville, Ga.

Secretary-Treasurer—Dr. J. C. Bennett, Jefferson, Ga.

The next meeting place will be Commerce, Ga. Guest of Jackson County Medical Society.

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#### Jenkins County Medical Society

Jenkins County Medical Society reports following officers for 1922:

President—Dr. Q. A. Mulkey, Millen, Ga.

Vice-President—Dr. M. E. Perkins, Millen, Ga.

Secretary-Treasurer—Dr. C. Thompson, Millen, Ga.

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#### Laurens County Medical Society

Laurens County Medical Society reports following officers for 1922:

President—Dr. R. J. Campbell, Dudley, Ga.

Vice-President—Dr. T. J. Blackshear, Jr., Dublin, Ga.

Secretary-Treasurer—Dr. O. H. Cheek, Dublin, Ga.

Board of Censors—Dr. J. L. Weddington.

#### Blue Ridge Medical Society

Blue Ridge Medical Society reports following officers for 1922:

President—Dr. C. E. Cox, Blue Ridge, Ga.

Vice-President—Dr. N. C. Goss, Ellijay, Ga.

Secretary-Treasurer—Dr. C. B. Crawford, Blue Ridge, Ga.

Delegate—Dr. C. B. Crawford.

Board of Censors—Drs. J. B. Chastain, J. M. Daves and C. J. Wellborn.

#### Mitchell County Medical Society

Mitchell County Medical Society reports following officers for 1922:

President—Dr. J. L. Brown, Camilla, Ga.

Vice-President—Dr. J. R. Clements, Pelham, Ga.

Secretary-Treasurer—Dr. R. A. Hill, Pelham, Ga.

Delegates—Drs. J. M. Spence and R. A. Hill.

Board of Censors—Drs. O. B. Bush, C. O. Rainey, C. L. Roles.

#### Macon-Taylor County Medical Society

Macon-Taylor County Medical Society reports following officers for 1922:

President—Dr. R. C. Montgomery, Butler, Ga.

Vice-President—Dr. S. B. Liggin, Montezuma, Ga.

Secretary-Treasurer—Dr. R. E. McGill, Montezuma, Ga.

Delegates—Drs. F. M. Mullino and C. F. Ficklin.

Board of Censors—Drs. C. H. Greer, D. B. Frederick and S. H. Bryan.

#### Carroll County Medical Society

Carroll County Medical Society reports following officers for 1922:

President—Dr. Claud Griffin, Carrollton, Ga.

Vice-President—Dr. C. C. Fitts, Carrollton, Ga.

Secretary-Treasurer—Dr. H. L. Barker, Carrollton, Ga.

Delegate—Dr. B. C. Powell.

### COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION.

(Report of Meeting, Augusta, Ga., October 22nd, 1921.)

Present, Drs. Topel, Floyd, Abercrombie, Reginald Maxwell, (dentist) Preston, (Hephzibah) Mulherin.

#### Outline for Future Work.

(1) State Board of Health to stamp approval of Committee on Health and Public Instruction on literature sent out by them pertaining to use of toxin-antitoxin.

(2) Georgia Pediatric Society to be asked to furnish pediatricians to demonstrate Schick test at District Medical meetings, and to strongly advocate the use of toxin-antitoxin.

(3) Health and Public Instruction Committee to officially appoint lecturers on medical subjects in every county in Georgia, these lecturers to be available to Parent-Teachers' Association. Parent-Teachers' Association to be notified of their appointment.

(4) The committee to give special attention to recodifying the Georgia sanitary laws, especially as they pertain to infants and children. Georgia Pediatric Society to be asked to appoint a committee to go over laws pertaining to infants and children.

(5) To call a joint meeting of the Georgia Teachers' Association, Georgia Parent-Teachers' Association, Georgia Federation of Women's Clubs, and our committee, in order to concentrate our efforts on health and public instruction throughout our State, especially in the schools. The policy being to direct our efforts upon a few things, and put them over, instead of attempting many things. The three thought most desirable upon which to concentrate were: toxin-antitoxin, recodifying health laws, and available lecturers in different councillor to the State Medical Association,



## EMORY UNIVERSITY ALUMNI CLINIC WEEK AND INSTITUTE FOR VENEREAL DISEASES.

The Alumni Society of Emory University, School of Medicine, including Alumni of the Atlanta Medical College, Atlanta College of Physicians and Surgeons and Atlanta School of Medicine, is making elaborate preparations for an Alumni Clinic Week and Institute for Venereal Diseases, June 5th to 10th. It is planned to have clinics, lectures and laboratory demonstrations in the various departments of the medical school and hospitals in Atlanta in the forenoon of each day. The afternoons will be devoted to the Venereal Institute Clinic which will consist of an intensive study of venereal disease.

Dr. F. K. Boland, President of the Alumni Society, has appointed the following committees to plan the work for the Alumni reunion:

Committee on Announcements—Dr. Arthur G. Fort, Dr. H. R. Donaldson.

Committee on Clinics—Dr. W. E. Persson, Dr. Nevin Adkins, Dr. J. L. Campbell, Dr. S. R. Roberts, Dr. R. T. Dorsey, Dr. C. E. Waits, Dr. Sage Hardin, Dr. L. C. Fischer.

Committee on Banquet—Dr. H. M. Loke, Dr. J. Cheston King.

Committee on Permanent Organization.—Dr. A. H. Bunce, Dr. Ed H. Greene.

Committee on Laboratory Demonstrations—Dr. E. D. Shanks, Dr. S. S. Schochet.

Committee on Lectures—Dr. Garnett Quillian, Dr. L. P. Stephens.

It is planned to divide the Alumni into small groups so that they may get individual bedside instruction. Laboratory demonstrations illustrating the newer aids in diagnosis, including blood chemistry, basal metabolism and other procedures, will be given to small groups. Clinico-pathological conferences with the demonstration of pathological specimens and autopsy material will be held each day. Alumni will be placed in actual charges of medical and surgical cases if they so desire.

Dr. J. W. Roberts, secretary of the Alumni Society, is preparing a bulletin giving details of the reunion which will be sent to all Alumni. He is especially anxious to get the permanent addresses of all Alumni as early as possible.

Dr. Joe P. Bowdoin will have charge of the program for the Venereal Institute. Last year it had in attendance 145 physicians, representing 71 counties. He wants every doctor who attended last year to come back and bring his brother practitioner. The laboratory of the State Board of Health will keep open house and will be glad to have every one in attendance visit the laboratory and see its work at first hand. The state health officers will be in annual session at the same time.

A banquet in honor of the visitors will be given by the Atlanta Alumni. The Fulton County Medical Society has invited all visitors to its regular meeting on Thursday night during the week.

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## ANNUAL BANQUET PHI CHI FRATERNITY.

On February 18th, at 8:30 p. m., the annual banquet of the Phi Chi Fraternity was held at the Georgian Terrace Hotel. Dr. Theodore P. Pearson, Grand Secretary, was the guest of honor of Upsilon Chapter. All of the active members of the chapter and many of the Alumni and associate members were present.

Dr. Cyrus W. Strickler, Professor of Medicine at Emory University, presided as toastmaster. Interesting talks were made by Drs. Arch Elkin, M. C. Pruitt, E. C. Thrash, Dunbar Roy, Allen Bunce, Willis Westmoreland and Theodore Pearson. Mr. McClung, presiding senior of Upsilon Chapter, responded for the active members. The Alumni and Associate members pledged their full support to the establishment of a permanent chapter house for the students. Phi Chi is now and has been for some time the largest and strongest medical fraternity in the United States.

An elaborate banquet was served, which was thoroughly enjoyed by all.

### Announcements.

Drs. Ambler & Ambler announce the opening of Ambler Heights Sanitarium, for tuberculosis, Asheville, N. C.

### MEETING NATIONAL BOARD OF MEDICAL EXAMINERS.

The dates for the next two examinations of the National Board of Medical Examiners are as follows:

Part I and II, June 19, 20; 21, 22 and 23, 1922.

Part I and II, September 25, 26, 27, 28 and 29, 1922.

Applications for the June examination should be in the Secretary's office not later than May 15th, and for the September examination not later than June 1st. Application blanks and circulars of information may be had in writing to the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

### ARKANSAS MEDICAL SOCIETY.

The motif of our coming annual session to be held in Little Rock May 17-19, next, is to be the "home-coming meeting" and we are very desirous of informing our old-time doctors from Arkansas, now practising in other states, and of stressing the fact that we shall expect them to be with us at the time indicated. This will be especially applicable to those desiring to attend the meeting of the American Medical Association at St. Louis; as they can stop off with us, renew old acquaintances and resume their journey.

WM. R. BATHURST,  
Secretary-Editor.

The Bulletin of Harbin Hospital, Rome, Ga., Vol. 1, No. 6, is just off the press. This number is very good, the leading article being on "Pelvic Pathology." It also contains a very good discussion on the current subject of "Full Time Teachers."

American Proctologic Society will hold its twenty-third annual meeting in St. Louis, May 22nd to 23rd, 1922. The meeting place and headquarters will be Hotel

Claridge. The profession is cordially invited to attend the public session.

### ABSTRACTS.

**The Management of Certain Types of Malignancies.** Jackson W. Landham, M. D., Atlanta, Ga. J. M. A. Georgia, January, 1922, p. 1.

Results obtained by the combined use of the x-ray, radium, electro-coagulation and fulguration in connection with surgery or used alone in inoperable cases have justified these measures in the management of all types in malignancies. Both the growth and the patient must be carefully studied before deciding on the method of treatment.

Basal cell epithelioma occurs more frequently in men and is found in the nodular form, as an ulcerated area, or as a scaly lesion. Over ninety-six per cent of these are located above the clavicle. Better cosmetic effects and as high a percentage of cures as with surgery lead the author to prefer other methods than surgery in these cases.

His technique is as follows: (1) Destroy inflammatory and hypertrophied tissue by fulguration and thus close the lymphatics having a direct communication with the lesion. (2) Irradiate the lesion with the roentgen ray or radium, protecting the surrounding normal tissue by means of a sheet of lead one-sixteenth of an inch thick, which has been perforated to conform to the size of the growth to be treated, the area receiving a pure erythema dose. Two mm. of aluminum with the x-ray or five-tenths mm. of brass with radium is sufficient filtration. (3) Treat regional lymphatics with the x-ray to prevent the possibility of metastases, using deep therapy, heavy filtration and high voltage.

Epitheliomata of the mucous membrane of the mouth are highly malignant and show an early tendency to metastasize and the mortality rate is very high. Most cases referred to the radiologist are referred from the surgeon because inopera-



ble. Fulguration, massive doses of radium and intensive x-ray therapy over the growth and the adjacent lymphatics are required.

In inoperable, post-operative and recurrent cases of carcinoma of the breast and in metastases of these cases the roentgen ray is the agent of choice. The technique used is nine and one-half inch spark gap, five milliamperes current, ten inch skin target distance and not less than six mm. aluminum as filters. The entire surface should be treated through small portals of entry, eight by ten centimeters, with nine to fifteen minutes exposure. Electro-coagulation and radium should supplement the roentgen ray treatment.

Dr. William J. Mayo is quoted as authority for the statement that post-operative and pre-operative treatment by the roentgen ray is most desirable. "By properly combining radio-therapy with surgery we can increase operability, lower mortality and increase the percentage of cures." Operation should not be delayed after radiotherapy because of the comparatively short period of increased cell vulnerability and the fact that the subsequent connective tissue formation will interfere with surgery. The author states that three weeks after ante-operative treatment is the proper time for operation.

Cancer of the cervix, when seen by the surgeon or the gynecologist, is practically always inoperable. A review of the literature shows that roentgen rays and radium are invaluable here.

In lymphosarcoma the roentgen ray is more effective than radium and preferable to surgery.

—Abstract from *The Journal of Radiology*, March 1922, III., 3.

**The Treatment of Brain Tumors.** By Walter E. Dandy, M. D. *Journal American Medical Association*. Dec. 10, 1921.

This is by far the best article appearing in recent years on the surgical treatment of brain tumors. Dandy has written in a

fearless and courageous manner and since he is generally regarded as the foremost man in this particular line of work, his statements are to be taken as final in neurologic surgery. He does not hesitate to say that brain surgery is still a crude and bungling effort and until the surgeon ceases the bungling indirect operative treatment and strikes for the cause directly and effectively, the black eye of this field will remain justly merited and most of their treatment had far better not have been done.

Of decompressions he states that they are among the most harmful and indefensible operations in surgery. They are the exact equivalent of giving morphine for abdominal pain; the symptoms are masked until too late. That no good can possibly be derived from a decompression in hydrocephalus. Exploratory craniotomies for brain tumors are scarcely ever indicated. Whenever a neurological examination fails in the localization of a brain tumor, cerebral pneumography will make the diagnosis and localization with precision and without equivocation. Air should not be injected into the cranium, however, because there is only a suspicion of a brain tumor. He maintains that good results can only be obtained when the diagnosis and operation is made in the early stage of the growth. Radium, x-ray and drugs, he considers to be ineffectual.

**Parathyroid Grafts in Paralysis Agitans.** By W. Kuhl. *Munchener Med. Wochensft.* Aug. 26, 1921.

Kuhl selected a typical case of paralysis agitans which had been under observation for three months. He removed the parathyroid glands from two calves and fifteen minutes later embedded them, at two different points, under the abdominal skin of his patient. The results were so surprising that the patients' neighbors thought a miracle had happened. Repulsion and dragging of the feet had almost disappeared on the eighth day. After the fifteenth day he could lie down on the floor and arise without assistance. He

could feed himself and spread his fingers, which had been impossible before. The author attributes the muscular rigidity in paralysis agitans to a hypofunctioning of the parathyroid glands.

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**Migraine and Anaphylaxis.** By H. A. Lubbers. *Nederlandsch Tijdschft. v. Geneeskunde*, Amsterdam. Aug. 27, 1921.

Lubbers found that his patient had a severe migraine after she had eaten beans. The number of leukocytes declined slightly within thirty minutes after the test ingestion of beans and the migraine developed eight hours afterwards. Skin tests were negative, but a preventative ingestion of 0.5 gm. of peptone before eating the beans warded off an attack of migraine.

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**Newer Methods of Staining Tubercle Bacilli.** During the war, several new methods for staining tubercle bacilli were discovered. All of these methods apparently have advantages. Several articles treating with this subject recently appeared in foreign medical journals. ("Konrich's Method of Staining the Koch Bacillus;" a Botti, in *Gass.d. osp.*, June 5, 1921; "Comparative Experiments with the Newer Methods of Staining Tubercle Bacilli;" O. H. Spreitzer, in *Centrab.f. Bakteriöl.*, July 8, 1921.) Among these newer methods, the procedure of Konrich appears to be the most satisfactory. This method is as follows: The smear is stained with hot carbol-fuchsin for from one-half to two minutes, then washed with water, completely decolorized with 10% aq. sol. of sodium sulphite, then washed with water and stained for one-fourth to one-half minute with an aq. sol. of Malachite green. The Malachite green sol. represents 50 c.c. of sat. watery solution to 100 c.c. of water. The abstractor has tried this method for several months and has found it to be much superior to any meth-

ods previously used. This method is very cheap, simple, and brings a greater number of tubercle bacilli into view.

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**The Clinical Value of the Kolmer Modification of the Wassermann Test.** J. F. Schamberg and J. V. Klauder (*Med. Clin. N. A.*, Nov., 1921.) have used the Kolmer modification of the Wassermann test in about 2,000 instances and have compared this modification with the older three-antigen technic. As a result of this study, they have formed the following opinion:

1. The Kolmer method yields distinctly more sensitive results than the older method, being frequently positive when the latter is negative.

2. It does not appear to give false positives in non-syphilitic subjects, nor in patients who have been treated for syphilis.

3. It appears to give an earlier positive in primary syphilis, the value of which will be readily appreciated.

4. It is much slower than the older method to become negative under treatment, because it is more delicate in detecting minute amounts of reagin in the blood.

5. By reason of this it insures to patients more adequate and protracted treatment.

6. It harmonizes with the clinical findings better than the older method which was notorious for many unwarrantable negative reactions.

7. Its quantitative character permits one to better gauge the effect of anti-syphilitic treatment. It likewise gives suggestive evidence in connection with the so-called "Wassermannfast" cases.

8. We regard the Kolmer modification of the Wassermann test as a most important advance, and one calculated to shed added light on the detection of obscure syphilis and in the ultimate determination of the effects of treatment.



**NEW AND NON-OFFICIAL REMEDIES.**

**Animal Epidermal Extract Allergens-Squibb**—Powders representing the alkali-soluble protein from the hair and epidermis of animals or from the feathers of fowls. Animal Epidermal Extract Allergens-Squibb are employed for the diagnosis of asthma or perennial rhinitis. The patient's susceptibility may be tested in the same manner as that employed for pollen extracts. They are not intended for treatment. The following allergens have been accepted: Burro Dander Allergen-Squibb, Burro Hair Allergen-Squibb, Cat Dander Allergen-Squibb, Cat Hair Allergen-Squibb, Chicken Feathers Allergen-Squibb, Cow Dander Allergen-Squibb, Cow Hair Allergen-Squibb, Dog Dander Allergen-Squibb, Dog Hair Allergen-Squibb, Duck Feathers Allergen-Squibb, Goose Feathers Allergen-Squibb, Horse Dander Allergen-Squibb, Horse Hair Allergen-Squibb, Rabbit Dander Allergen-Squibb and Rabbit Hair Allergen-Squibb. E. R. Squibb and Sons, New York (Jour. A. M. A., Feb. 4, 1922, p. 349).

**Bacterial Allergens-Squibb.**—Protein extracted from bacterial cells. Bacterial proteins have been used cutaneously for the diagnosis of anaphylaxis to the metabolic products from specific bacteria. Their utility is debatable. The following allergens have been accepted: *Bacillus Coli* Allergen-Squibb, *Bacillus Pertussis* Allergen-Squibb, *Bacillus Typhosus* Allergen-Squibb, *Catarrhalis* Allergen-Squibb, *Gonococcus* Allergen-Squibb, *Pneumococcus-I* Allergen-Squibb, *Pneumococcus-II* Allergen-Squibb, *Pneumococcus-III* Allergen-Squibb, *Pneumococcus-IV* Allergen-Squibb, *Staphylococcus Albus* Allergen-Squibb, *Staphylococcus Aureus* Allergen-Squibb, *Streptococcus pyogenes* Allergen-Squibb, and *Streptococcus Viridans* Allergen-Squibb. A. R. Squibb and Sons, New York (Jour. A. M. A., Feb. 4, 1922, p. 349).

**Butyn.**—Paraminobenzoyl-gammadinormal butylaminopropanol sulphate. It is a local anesthetic proposed as a substitute for cocain, particularly in surface anesthesia, as for the eye, nose and throat.

It has the advantage of acting through intact mucosae almost as effective as cocain. On the normal human eye, a 0.5 per cent solution of butyn is less effective than a 1 per cent solution of phenacain, but more efficient than a 1 per cent solution of cocain or a 1 per cent solution of eucain. Butyn has been used with success in practically all operations on the eye and in some operations on the nose and throat. Butyn is supplied in solution and also as Butyn Solution, 2 per cent; Butyn Tablets, 0.2 gm., and Butyn and Epinephrin Hypodermic tablets. The Abbott Laboratories, Chicago.

**Pituitrin "O".**—An extract of the posterior lobe of the pituitary of cattle, approximately 21-2 times the strength of Solution of Hypophysis U. S. P. For a discussion of the actions and uses see article Pituitary Gland, New and Nonofficial Remedies 1921, p. 219. Pituitrin "O" is supplied in 0.5 Cc, and 1 Cc. ampules. Parke, Davis and Co., Detroit (Jour. A. M. A., Feb. 11, 1922, p. 431).

**Butyn, A New Synthetic Local Anesthetic.**—A committee of the A. M. A. Section on Ophthalmology reports to the Council on Pharmacy and Chemistry on the clinical use of butyn in operations on the eye, nose, and throat. The committee finds butyn preferable to cocain as an anesthetic in operation on the eye. One member of the committee also reports favorably on its use in operations on the nose and throat. As a result of the clinical and experimental use of butyn, the committee arrives at the following conclusions: 1. It is more powerful than cocain, a smaller quantity being required. 2. It acts more rapidly than cocain. 3. Its action is more prolonged than that of cocain. 4. According to our experience to date, butyn in the quantity required is less toxic than cocain. 5. It produces no drying effect on tissues. 6. It produces no change in the size of the pupil. 7. It has no ischemic effect and therefore causes no shrinking of tissues. 8. It can be boiled without impairing its anesthetic efficiency (Jour. A. M. A., Feb. 4, 1922, p. 345).

Urotropin was removed from the list of articles accepted for New and Non-official Remedies because Schering and Glatz, Inc., refused to place the U. S. Pharmacopeia name hexamethylenamine (hexamethylenamina) on the label and in its advertising so as to make clear to physicians the identity of the product, and because it was sold under the therapeutic claims which the Council held unwarranted. An advertising pamphlet sent to physicians in 1921 contains a number of unwarranted statements; particularly objectionable are the claims made for the use of Urotropin as an antiseptic in body fluids that are alkaline, such as the cerebro-spinal fluid, bile, aqueous humor of the eye, saliva, the excretions caused by middle ear infection and other excretions of the nasal, bronchial, laryngeal and mucous membranes. The lack of efficacy of hexamethylenamine in alkaline secretions is generally admitted, and the clinical references to the use of hexamethylenamine in the pamphlet are obsolete. In the introduction to the pamphlet, Schering and Glatz state that they are well acquainted with the scientific research work discrediting the efficiency of hexamethylenamine in non-acid media, but that they feel that the accumulated evidence for its efficiency in such conditions should not be "brushed aside." However, the pamphlet is not made up of quotations, but of unqualified statements. With one exception, all reference to the antiseptic properties of the drug in alkaline media are previous to 1913, that is, before the importance of reaction of the medium was fully appreciated. To quote these earlier articles, without regard to the later work which in most eyes discredit them, constitutes in effect an exploitation of this brand of hexamethylenamine under unwarranted therapeutic claims (*Jour. A. M. A.*, Feb. 18, 1922, p. 531).

#### BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for

review in the interest of our readers, with the assurance of the publishers that most books will be reviewed.

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Lessons on Tuberculosis and Consumption, by Chares E. Atkinson, M. D. 12 mo. cloth, 470 pages. Price \$2.50 net. Funk & Wagnalls Company, New York, Publishers.

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**Mental Disorders Briefly Described and Classified With a Few Remarks on Treatment and Prevention.** By C. B. Thompson, M. D., Medical Director of the Mental Hygiene Society of Maryland. 48 pages. Warwick and York, Baltimore. 1920.

This syllabus is perhaps a little too concise to be of benefit to the practitioner. Its real value is to teachers who want a short summary of the various mental diseases for the purpose of arranging their lectures. The space given to the prevention and treatment of mental disorders is entirely too limited.

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**Physiology and Pathology of the Cerebrospinal Fluid.** By Wm. Boyd, Prof. of Pathology, Univ. of Manitoba. 176 pages. Macmillan Company, New York. 1920.

This work of Dr. Boyd's is the second one to appear by an American writer on the cerebrospinal fluid. He goes into the subject with great thoroughness in discussing the origin, function, and circulation of the fluid. The chemical properties and the cytology of the fluid are brought up to date. The Lange and Wassermann reactions are given considerable space. His discussion of the cerebrospinal fluid findings in various diseases, as well as the uses of intraspinal therapy is particularly illuminating. This book deserves a place in the library of those who are limiting their time to laboratory work.

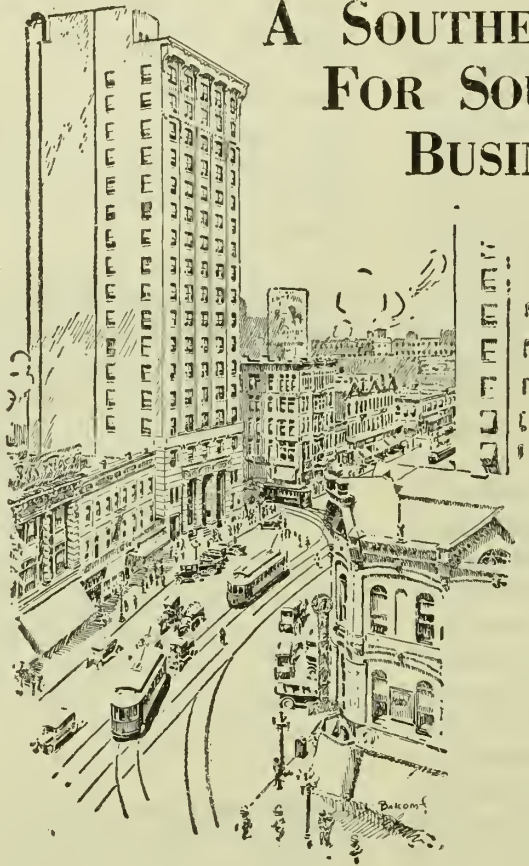
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#### DEATHS.

Dr. I. N. B. Spence, Social Circle, Ga., age 72; died March 22nd, 1922.

Dr. Thomas T. Key, Norcross, Ga., age 87; died March 23rd, 1922.





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### ORIGINAL ARTICLES

#### KIDNEY STUDY\*

J. P. Proctor, M. D.  
Athens, Ga.

For several years, now, I have been impressed with what seemed to me an unnecessary lack of uniformly good results from operations for the relief or intra-abdominal conditions—not only in my own patients but in those of other surgeons as well. In my opinion, this fact is not due to either errors of omission or commission in technic, but to errors in diagnosis. Once a correct diagnosis is made, surgery done by average operators of today will bring about brilliant results. But on the other hand, when a patient places his health and life in the hands of a surgeon in whom he has every confidence; passes through the ordeal of an abnormal operation and emerges from it alive but uncured, not the patient alone, but the surgeon who has operated upon him and surgery as a science are sufferers alike — the patient because he has suffered and paid in vain, the surgeon because he has given him new pain and failed to relieve the old, and surgery because toward it is pointed the finger of skepticism.

At our last meeting I presented a paper on Surgical Kidneys and within the past year I have pursued the subject; the result of which I beg to present to you in this paper.

Of a series of some twenty or more nephrectomies done by me within the past six years, over half have been done within the past two years. Horsley, writing in

the Virginia Semi-monthly recently, reports a series of sixteen nephrectomies—all that he has done since 1912—seven of which were done within the preceding twelve months. The reports of other surgeons are in about the same ratio. And this brings up the old unanswerable question: "Are surgical diseases of the kidney becoming more frequent, or are we now only breaking into a new field and finding them?" My answer would be that we are learning to find surgical kidneys now, whereas heretofore they have been unrecognized; just as appendicitis twenty-five years ago was considered a rare and dreaded disease.

With the advent and perfection of the x-ray and catheterizing cystoscope, we have become able to expose the secrets of an organ which hitherto has defied us to do more than guess except in the most patent cases.

Let us deal a while with the symptom complex which arouses in our minds suspicion of the kidney as an offending organ:

Pain usually commencing in the region of one or the other kidney, and radiating forward and downward along the course of the ureter to the bladder, to the glans penis and scrotum in the male, and often to the hip and down the thigh and leg of the affected side; nausea and vomiting; muscular rigidity; tenderness, usually over the affected kidney; variations of temperature and pulse; haematuria; pyuria; frequency of micturition; digestive disturbances, accompanied by flatulence; chills; sweats; tumors in one or the other kidney region.

Pain—Varying in degree, is a symptom of practically every intra-abdominal sur-

\* Read before the annual meeting of the Medical Society of the Eighth Congressional District of Georgia, held at Eatonton, Ga., August 10th, 1921.



gical condition, and only by its radiation along certain lines may it be of diagnostic value.

Nausea and vomiting, likewise common in both medical and surgical intra-abdominal conditions, is of little value.

Muscular rigidity is sometimes present in surgical diseases of the kidney, especially in acute infections, and then is more apt to be found in the dorsal muscles immediately overlying the kidney. It is more often found in other acute conditions of the abdomen, such as appendicitis, hepatic colic, perforating gastric, duodenal or typhoid ulcer, and, in these conditions, is found in the muscles of the anterior abdominal wall.

Tenderness—Not so often found in kidney as in other acute intra-abdominal conditions and is less exquisite unless it be in perinephritic abscess.

Variations of Temperature and Pulse—It has been my observation that the pulse rate does not keep pace with the temperature rise in acute kidney infections, as a rule. Rather, it assumes the typhoid characteristic and remains slow, even though the temperature goes high. I can offer no explanation of this phenomena unless it be that the Colon Bacillus, which, in the majority of cases, is the offending organism in kidney infections, possesses this characteristic in common with several others with the typhoid bacillus. And when, in acute infections of the kidney, the pulse rate increases correspondingly with the temperature rise, the infection is more apt to be caused by a pyogenic organism, especially some form of staphylococcus. In other acute surgical conditions of the abdomen the pulse is apt to be rapid and so has been styled the "pulsus abdominis."

Chills are much more apt to occur in acute infections of the kidney than in other acute intra-abdominal conditions; but when they do occur in such diseases as acute appendicitis or cholecystitis their presence is of graver significance than in kidney infections. They occur with no definite periodicity but recur at

irregular intervals, are followed by profuse sweats, and stamp the facies of the patient with the unmistakable picture of sepsis.

Haematuria—Of all the symptoms or signs of surgical disease of the kidney, I value most highly haematuria. We must not forget the fact that blood in the urine, arising from either the bladder or urethra, is usually bright red whereas, that of renal origin, having accumulated in the bladder slowly and been subjected to the influence of the urine, is of a smokey or greenish color in small or moderate amounts, and of coffee ground appearance when in large quantities. This is due to the effects of the urine, with which it becomes slowly mixed and remains in the bladder for some considerable time. Blood of renal origin must have been lost exceedingly rapidly to retain its "blood red" color when voided. It may exist in quantities which are only demonstrable with the microscope to a urine which is macroscopically nearly all blood. Whenever blood of renal origin appears in the urine it must be looked upon as a symptom which calls for thorough investigation. Its presence may mean surgically Renal Culculus, Pyonephrosis, Pyelitis, Hydronephrosis, Hemorrhagic Kidney or Malignancy. In most instances its origin may be determined only by catheterization of both kidneys.

Pyuria is a common symptom and means nothing unless we can determine its origin. In voided or specimens catheterized from the bladder this is impossible. It may originate from any point between the cortex of the kidney and the vulva in the female, and anterior urethra in the male. It is a symptom of pyonephrosis, pyelitis, renal tuberculosis, renal calculus, ureteritis, cystitis, urethritis and vaginitis. Our only means of determining the source is by the ureteral catheter; and even then we have to decide between pyelitis, renal calculus, renal tuberculosis and pyonephrosis. To decide between these, we must rely upon microscopical study of pus catheterized from the kidney, the kidney capacity and pyelography after the kidney has

been injected with shadow-giving fluids.

**Deranged Bladder Function** — This symptom most often takes the form of too frequent micturition, though it may appear as retention of urine. It is most probably due to impulses transmitted from the irritated kidney along the line of the ureter to the bladder. In some cases of renal calculus where there have been no acute attacks of pain because the stone has remained quiescent, too frequent micturition is often the only subjective symptom. The same symptom, however, may arise in a number of other conditions, such as cystitis, urethritis, bladder stone, vaginitis, diabetes, etc., and only directs our attention to the kidney when we can find no cause for it elsewhere.

**Flatulence**—A symptom of practically any derangement of the abdominal organs and most often associated with constipation of stubborn nature. I have seen the abdomen so much distended with gas in acute surgical disease of the kidney that it was impossible to make out the presence of tumors of large size by palpation.

The following case reports will better illustrate my remarks:

**Case I.** The X-ray plates show the right and left kidneys normal in shape, size and position. Urine catheterized from both kidneys was absolutely normal. The patient is a hysterical woman of twenty-one years, who complains bitterly of pain in the left kidney region and bladder. Pain is the only cardinal symptom present in this case. The cystoscope showed a normal bladder. Appropriate medicinal remedies relieved the patient of all symptoms.

**Case II.** Mrs. H. W. W., a multipara, age 52, has been in poor health for several years, being told that she had "kidney trouble," the nature of which was not stated by the attending physician. The present illness began in the night of March 31st, 1921, with severe pain in the left kidney region, nausea and vomiting. The first urine voided thereafter "looked like pure blood." The pain began to subside and was not severe after the first twenty-four

hours, but the nausea and vomiting were persistent and distressing. I was called in consultation on March 31st. At that time there was very little pain, but the nausea and vomiting had not improved. The temperature was ninety-nine (99 1-2), pulse seventy (70). No tumor could be found in either kidney region, and a specimen of urine could not then be obtained. Pelvic examination revealed no pathology. On April 1st the patient was brought into St. Mary's Hospital. Her condition being so unfavorable nothing more was attempted than to try to relieve the nausea and vomiting, which were so severe and persistent that intravenous salines were necessary to keep up the body fluids. Urine catheterized from the bladder was of milky appearance, of strong, offensive odor, contained albumen in large quantities and the microscope showed myriads of pus cells, but no blood. The pulse rate did not exceed 84, though the temperature arose to 104 and stayed there. The white cell count was 9,000, haemaglobin 70 per cent. The abdomen was greatly distended with gas and the patient could retain absolutely no nourishment. She was losing daily and further temporizing was unwise. Accordingly, on April 7th cystoscopy, bilateral kidney catheterization, injection and pyelography of the left kidney were done. The excretion from the right kidney was normal in function and character. A No. 6 catheter was carried into the left kidney and immediately there began a steady flow of almost pure pus, which kept up for fifteen minutes, after which there was no further drainage from the catheter; which showed the kidney functionless. The left kidney was then injected with 60 cc of a 15 per cent solution of sodium bromide in sterile water and a pyelogram made. The diagnosis was then absolutely definite and, despite the desperate condition of the patient, left nephrectomy was determined upon and done on April 8th. The operation consumed thirty minutes and an enormous kidney was removed. This consisted of an abscess cavity taking in the pelvis and medullary por-



tion of the kidney, while the cortex was studded with individual abscesses. The pus in these abscesses had the odor of a typical colon bacillus infection. The temperature and pulse were normal and nausea and vomiting had entirely ceased within twenty-four hours after completion of the operation. The woman went on to an uneventful recovery.

Case III. J. A. S., white male, age 21, cotton mill operative, ex-soldier, was referred to me on April 28th, 1921, by Dr. H. I. Reynolds for diagnosis of a profuse haematuria. He gave a history of influenza in the fall of 1918, for which he was treated in an army hospital in France. Three weeks later he was sent to the trenches, exposed to severe weather conditions and suffered an attack of haematuria. Since his discharge from the army there have been several recurrences, the last being in progress when he was referred to me. In my presence the man voided a large amount of urine, which was of the color of muddy coffee and had a large deposit of coffee-ground material. Cystoscopy, double kidney catheterization and injection and pyelography of the right kidney were done on April 28th. No. 6 catheters were easily passed into both kidneys. From the right there was no flow at all. Thinking the right catheter might be stopped, I injected sterile boric acid solution into it. This passed without resistance into the kidney and returned promptly, after which there was no further flow. It was plain that the right kidney was not functioning. Twenty-five (25) cc of sodium bromide sol. was injected into the right kidney and produced pain. Pyelogram was made and showed a rounded outline of the kidney pelvis, which was much enlarged. A diagnosis of probable malignancy of the right kidney was reported. The man returned to his home, some few miles from Athens, on April 29th and was seized with severe pain in the right kidney region, but there was no further haematuria. His temperature rose rapidly to 103 and his pulse was fast and thready. There were present dryness of the mouth, chilly sensation, nausea and

vomiting, but no sweats. The temperature and pulse continued high. The pain persisted and the abdomen was distended and muscles tense and unyielding. On May 7th the man was brought into St. Mary's Hospital for immediate operation. He looked septic. The usual kidney incision was made and at the location of the right kidney was found an enormous fluctuating tumor filling practically the entire right half of the abdomen. The incision was carried downward and forward just above the crest of the ileum to the anterior abdominal wall. In my effort to deliver the tumor, it was ruptured and there escaped a large amount of the same kind of coffee-colored fluid the man had voided. The tumor proved to be a multilocular hydronephrosis with a fairly tough wall. There was no kidney tissue demonstrable. Drainage was established and the man returned to his bed. For one week his convalescence was satisfactory. Then there came on acute abdominal pain, some distention, tenderness over the lower right abdomen and muscular rigidity. Within a day or two a mass appeared at M'Burney's point, and I wondered if there had been an acute appendicitis overlooked at the time of the operation. A second operation was done on May 17th and the mass found to be the cecum enormously distended with gas. Behind the cecum, extra-peritoneally, was an abscess containing odorless pus which was of somewhat the color of the fluid found in the hydronephrosis. It was evidently due to seepage from the cavity left by removal of the kidney. The man went on to a slow but uneventful recovery.

Case IV. L. R. S., white male, aged 21, student, was referred to me by Dr. Dupree on May 31st for x-ray study of the right kidney to determine if a stone was present in the kidney or ureter. The man had just passed through a severe attack of renal colic. Though his urine contained both blood and pus in considerable quantity, no stone was found. Further examination was suggested but deferred in order that the patient might go on with his college work. At about 3 a. m. of June 27th he suffered another attack of pain which

was located about midway between the right kidney and M'Burney's point. The patient reported to the Crawford Long Infirmary for treatment and was seen by Drs. DuPree and Reynolds. His temperature was 99, pulse normal. There was no definite tenderness at any point. Later in the day the pain shifted to M'Burney's point and there was slight tenderness with muscle spasm. For the next twenty-four hours his condition remained unchanged and a tentative diagnosis of appendicitis was made. On the afternoon of the 28th there was a hard chill, followed by temperature 103, pulse 80 to 84; white blood count 20,280. I saw the patient in consultation on the afternoon of the 29th. There was no tenderness or muscle spasm upon pressure over M'Burney's point, but slight pain when the pressure was suddenly released. There was slight but definite tenderness upon pressure over the right kidney, and the urine contained a small amount of pus. The man appeared sicker than would have been expected from the clinical findings. On June 30th I again saw the patient. He complained of chilliness, with pain in the same location. Temperature 103 1-2, pulse 80 to 84. There was a large pyuria but the tenderness over the right kidney had not increased. The patient looked worse than on the day before. It was decided to bring him into St. Mary's Hospital and make a thorough kidney study. This was done on the afternoon of June 30th. Cystoscopy revealed a normal bladder except for the right ureteral orifice, which was pouted and acutely inflamed. Turbulent urine was seen to escape therefrom. A No. 6 catheter was inserted and easily carried to the upper third of the ureter, where it met an obstruction which prevented its further progress. Considerable pressure accomplished nothing. Thinking that there might be present a spasmodic element and that it might relax, I left the catheter in situ and turned my attention to the left kidney. A No. 6 catheter was quickly carried to the pelvis of the left kidney, from which drained normal urine. I then returned to the right side and again attempted to pass the cath-

eter but failed. It was then withdrawn and a No. 5, with very small olive tip was substituted. After several minutes of steady pressure, the catheter passed on to the pelvis. Immediately there was a rapid and steady flow of milky looking fluid of very foul odor, which lasted twenty minutes. The pelvis was then irrigated with sterile boric acid solution, injected with sodium bromide solution and x-rayed. The capacity of this kidney was 30 cc. A diagnosis of acute pyonephrosis with stricture of the upper third of the ureter was made. Had it not been for the presence of the stricture and the extreme illness of the patient, we might have been justified in trying to save this kidney; but in view of the presence of the stricture, which prevented sufficient drainage into the bladder, nephrectomy was decided upon. This was done July 1st. The kidney was found enlarged to three times its normal size and very much congested. Beneath the capsule were hundreds of minute abscesses filled with creamy pus, and there was a typical colon bacillus odor not only in the kidney but in the perinephritic tissues as well. Drainage was placed in the cavity from which the kidney was removed and the man returned to bed in good condition. Within twenty-four hours all symptoms had subsided and the patient had a smooth and uneventful recovery.

These four cases were selected for report because they demonstrate the precision of kidney diagnosis with the means now at our disposal. It is a grave mistake to remove from the body any organ of as great importance as the kidney, and it should never be done until every effort has been made to prove it a menace to the welfare of the patient. But when the necessity is proven, nephrectomy is as well borne as any surgical procedure of similar magnitude. In the writer's series of over twenty cases there has been but one death, and that one was due to hemorrhage following the attempted removal of an inoperable sarcoma in a lad of sixteen years. The operation was not completed. The mistake was the failure to properly diag-



nose the case as inoperable before the operation was begun. In none of the others has there been a failure to cure.

#### Conclusions:

1. Surgical disease of the kidney is much more common than is generally believed; and in my opinion the time is near when the kidney will be found to rank second only to the appendix as the intra-abdominal organ to offend.

2. Kidney surgery is remarkably safe in the hands of the average surgeon. Its ease of extra-peritoneal approach is largely responsible for this fact.

3. In colon bacillus infections of the kidney, the pulse is always slow in comparison with the temperature rise and other clinical manifestations.

4. In but few other conditions is the diagnosis so difficult and yet so accurate.

### DISORDERS OF THE STOMACH, A FEW FACTS, FALLACIES AND FIGURES.

C. W. Roberts, M.D.

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This paper purports to deal with some facts; to call attention to a few fallacies, and to impress upon you certain figures related to the subject of stomach complaints.

You have frequently heard the adage—"A little falsehood becomes permissible if, by its use, a greater truth may be emphasized, or the cause of a worthy principle better served."

To the artful practice of such petty deception, designed as it may be to serve commendable ends, you may not readily subscribe. Notwithstanding, I beg your indulgence while I proceed to a discussion of this subject by the exercise of a form of vice, admittedly falling into the questionable catalogue.

The student of gastro-intestinal disorders quickly finds himself at the mercy of many perplexing theories concerning the cause of clinical symptoms associated with

gastric diseases; theories that do not admit of satisfactory application. In this confusing maze, where truth seems so elusive, I have dared to think that near facts were permissible; that explanations built on premises of acknowledged assailability might be tolerable, so long as we are able, by their means, to gain a better understanding of accepted clinical observations, in the domain of abdominal pathology.

Moreover, the sentiments expressed in this paper lay no claim to originality or to scientific accuracy. They are not new. By design they fall into the classification of near facts and are presented to you with apology, in human interest style in the hope that you may be furnished a more tangible basis upon which to predicate certain well recognized, widely accepted clinical observations bearing upon the question of stomach disorders in general and the popular theme of reflex indigestion in particular.

#### Visceral Sympathetic Innervation.

The stomach lies immediately in front of the great solar plexus, which may be considered the receiving station for the numerous impulses arising in the sympathetic plexuses and associated nerves, abundantly supplying the viscera. From this central station these impulses are distributed, some to non-striated muscle, others to neighboring endocrine glands, whose function is thus awakened; many pass to the thoracic ganglia lying along the sides of the spinal column, and a few go by way of the vagus directly to the central nervous system. Most of these impulses receive adequate response without reaching the consciousness of the patient. Only those set up by diseased processes and expressing themselves as pain, fullness, upward pressure, nausea, etc., are registered on the conscious mind, which is depended upon to give direction to the activities of the economy under conditions of stress. In the evolutionary scheme, the mind was made the court of last resort.

The common symptoms of indigestion, therefore, must be looked upon as manifes-

tations of a defensive nature and intended to protect the body—as warnings, though often silent and elusive, which give definite notice of existing abdominal disorder.

Some years ago in conversation with a professional friend, a good doctor of more than average ability, and one solicitous of the welfare of his clientele, I was told with the pomp that attends a feeling of satisfaction, that, in a long experience, during which many cases of acute appendicitis had come under his observation, not a single mistake in diagnosis had been made. Says he, the surgeon always concurs in my opinion, and at operation, is able to reveal a large abscess, or to remove from the midst of the inflammatory mass, always freely palpable and obvious, an appendix of unmistakable pathologic nature.

That period in the history of abdominal diseases, in which physicians were content to recognize terminal pathological lesions, and the surgeon satisfied at efforts to show by laborious reports, designed to point out a lower mortality rate, in a given series of frank cancerous, or gall bladder cases than that of a neighbor surgeon when confronted with a like series, has haply given way to the march of science and we now hear the voice of justice calling for earlier diagnosis, with its handmaiden, simplified pathology, as opposed to late recognition with its spectacular aspects; its inherent dangers and its greatly increased mortality and morbidity rate.

Our duty toward the bedridden has not changed. We owe them all modern medicine can offer in the way of palliation and cure, but shall we be accused of visionary indulgence when it is asserted that the highest function of the science of medicine, must concern itself now and at all times with a question of prevention rather than cure; indeed must cure disease by the application of preventive means.

### Concerning Preventive Medicine in General.

May I be permitted to digress here to pay my tribute to that army of workers in this special field, whose unselfish labor has arrested the attention and earned the

plaudits of a waiting world. It is the achievements of preventive medicine during the past few decades that have forever silenced that minority of carping critics who would drag the profession of medicine and its true disciples down to the level of an ordinary trade. By it, the span of human life has been appreciably lengthened; the sum total of human happiness has been immeasurably increased. The inalienable rights of the generations of the unborn have been protected and preserved for them as their most precious legacy, Misery, woe, want, pestilence, crippled bodies and souls, dwarfed minds; the strangle-hold of diphtheria; the ravages of plague, the scourge of disease in all its forms, has been the target of the combined forces of all branches and groups of specialists comprising the profession, in whose advancement we have been content to live, and to whose ideals, willing to devote all our energies. Who would dare set a price on the value of preventive medicine to humanity? Be it said to the glory of our calling that, wherever the yellow flag of pestilence has raised its horrid folds, our disciples, filled with the holy fire, and driven always by a desire for service to mankind, have been found in the thickest of the fight, actuated not by an expectancy of adequate pecuniary reward, nor the hope thereof, but ordered by a consuming passion akin to that of the Divine, which draws its full measure of compensation from a consciousness of service faithfully performed. Ours is a profession; a glorious calling! Stay the day when it becomes a trade—whose devotees seek first a monetary reward!

In this broadened viewpoint, let us consider the subject of stomach disorders. We concentrate attention not on the detailed description of signs and symptoms of well-known gastro-intestinal diseases, the end results of neglected, chronic abdominal pathology, but rather upon the more elusive complaints of the ambulatory sufferer who may casually call upon us for relief from the less urgent symptoms of chronic abdominal diseases, so commonly referred to the stomach. Neglect these complaints



and we multiply the tragedies so familiar to us all. Take them seriously and they lead us to the adoption of safe, sane and simple surgical or medical measures, by the application of which many potential calamities, considered when full-blown, under the head of the acute abdomen, massive abdominal tumors, the malignancies—now adorning the pages of current medical literature, and responsible for so many unseasonable graves—may be strikingly modified and often completely dissipated.

#### **The Field, Its Past and Future Rewards.**

Alertness upon the part of the general practitioner, keen observation and correct thinking, has brought its reward to thousands of our brethren who have been saved the dangers of late operations, which at best save life at the expense of lost function and the many unavoidable complications incident thereto. Our task, however, has but begun. Neglected appendicitis still claims high rank in our mortuary tables—some 10 per cent. Gall bladder diseases are still diagnosed by the appearance of jaundice, which is a late symptom and suggests deep-seated infection of the biliary system. Cancer of the stomach and its associated viscera occupies fourth place in the international list of causes of death—one in every seventeen throughout the registration area falling victims to this deadly enemy of civilized man. Indigestion must command the serious attention of our profession. It presents a problem worthy of the best thought—a challenge to our diagnostic acumen. It stands at the sentinel post and loudly shouts the unheeded alarm!

Hence, the pages of current medical literature abound in long descriptions of cases whose early history was elusive indigestion or recurring pain of moderate type. Many untimely graves stigmatize our conduct of these and serve to awake us to that responsibility befitting men of scientific mind.

Why should not the principle of preventive medicine apply in the abdomen? Of a truth, this is a fertile field.

#### **Incidence of Digestive Disorders.**

Symptoms referred by the patient to his stomach, furnish the topic of most common complaint by the multitudes of people visiting the offices of physicians throughout the country. Empirical treatment of these symptoms make the stomach, like the urinary bladder, a much abused organ, and besides crediting it with many diseases which it never had, thoroughly justifies our frequent consideration of the conditions expressing themselves through this viscus, in an effort to separate its real from its fancied diseases. Subjunctive manifestations of disease, or, if you please, the specific symptoms of a given disease represents the language of that malady. Facts do not change. Symptoms, though clean-cut in some conditions, but vague and elusive in others, furnish the lead to correct study and finally to accurate diagnosis. The physician, as the interpreter of these symptoms, fails often in catching their true meaning; thus arises differences of opinion, apparent conflicts of mind, out of which, however, springs the light illuminating the pathway of science and through which truth is finally established. In recent years, exact knowledge has been gained through the application of the aseptic scalpel, to borrow the words of Deaver. Light has been turned into the depths of the grumbling abdomen and, in countless numbers of cases, the stomach has been found masquerading under assumed burdens, bearing the brunt of the physician's therapeutic attack; acting freely as a mouthpiece through which the pathology has spoken, but itself cloaked only in fantastic make-believe.

#### **Theory of Explanation.**

The primitive functions of man, as of other species, are nutrition and reproduction. These instincts have long been exercised without conscious control, and indeed, after centuries of application of the restraints which education has imposed upon these primitive attributes, they still clamor for independent action which is largely accorded them. The digestive function is without the pale of conscious

control. Foods swallowed are henceforth propelled, acted upon, assimilated and the refuse ejected from the body by a wonderful system of vegetation physiology, whose various processes are initiated and controlled by the perfect inactivity of the sympathetic nervous system and the hormones of the internal secretory glands, and these again are modified to suit the widely divergent demands of kinds and quantities of foods taken under varying conditions and environments. The muscle of the gastro-intestinal tract is of the non-striated variety. The nerves are largely of the sympathetic type. The activities of these tissues of the body are sub-conscious; act without central control and respond to the primitive attributes of man, such as fear, hunger, fright, passion, etc.

The outstanding modification imposed by the appearance of the central nervous system, which was undoubtedly of later origin, upon the nerve supply of the digestive system, is represented by the development and innervation of two organs of convenience—the stomach at the proximal and sigmoid colon at the distal end. These are partially controlled by nerves supplied by the central nervous system, as becomes apparent with the conscious relief of hunger by the ingestion of food and the abatement of discomfort, incident to the evacuating of a loaded lower bowel. Hunger, although the call of the entire body for restorative elements is felt, not by the great expanse of absorptive surface below the stomach, some twenty-eight feet in length, and largely composing the digestive tube, but by the stomach alone, which seems endowed with the ability of communing with the higher centers as its demands may require. In like manner is probably explained the great multiplicity of symptoms, representing impulses from diseased states, apparently located in the stomach, and referred by the patient to this organ, though in reality, frequently found coming from a distant focus. It would thus appear that the stomach has been given a peculiar function by which it notifies the central nervous system of conditions normal and abnormal in the intes-

tinal tract. Anatomically the stomach and sigmoid are storage organs—the one for foods not immediately accommodated by the upper digestive tract and the other for the refuse resulting from activity of the intestinal glands, mixed with the unabsorbed food remains. The stomach is intimately connected, through the sympathetic nerves, with the several segments of the intestinal tract and its associated viscera, from which it receives various stimuli, both of normal and abnormal variety—the former accustomed by the forces of a long heredity to end in this viscus; the latter, representing impulses originating out of diseased tissue, are first transmitted to the stomach and thence relayed to the central nervous system for the exercise of its higher function. The message comes to the brain from the immediate environs of the stomach. The brain locates the trouble at the source of the message.

It becomes incumbent, therefore, upon the physician who sets himself up to treat diseases of the stomach, to entertain no fanciful, but a very real belief is the reflex activity of the neuro-muscular mechanism of the intestinal tract and in the study of a given case, presenting chronic stomach symptoms, characterized by the familiar story of uneasiness, upward pressure, gaseous distention and eructation; a sense of fullness, belching, heartburn, et cetera, to follow a certain regime by which the case in hand may be properly classified.

#### **Procedure and Evaluation of Data.**

The following is suggested as a satisfactory plan:

1. A careful history of the patient's story taken best by the physician himself and followed to its minutest detail.
2. The usual physical examination. A test meal gives valuable information, but should not be conclusive, either for or against, a theory of cause in a given case. The Roentgen ray is indispensable in the proper study of any case at hand and should be resorted to more frequently. It has both a positive and negative value.

Lastly, and perhaps of greatest impor-



tance, I would place the proper evaluation of the various data secured in the examination. A warning is here given against the exercise of an ultra-scientific attitude. There seems to be a swing of the pendulum away from the many-pointed view of the laboratory diagnosis back to that of the level-headed clinician.

#### Facts, Fallacies and Figures.

Statistical data coming from the operative clinics of various men dealing with intestinal disorders would seem to indicate that out of every one hundred people complaining of stomach symptoms, a thorough study and classification would place twenty of them in the group where the stomach itself shows causative pathology; forty out of the one hundred will be found to result from the so-called reflex causes of indigestion and the pathology will be found within the abdomen, involving the gall bladder, appendix, etc., but foreign to the stomach. Thirty of the one hundred will result from medical conditions—the list of causes being found in the vital organs as follows: heart, lungs, kidneys, blood, central nerves, and the remaining ten come from so-called functional causes, in which pathology sufficient to explain them, evades at the present time, the searching eye of the physician with his many instruments of precision.

The outstanding fact to which I wish to allude in conclusion is—that most sufferers from indigestion, coming to the physician with symptoms referred to the stomach, are really suffering from pathology which is foreign to this viscus. The outstanding fallacy, the natural outgrowth of the application of empirical medicine, viz., the treatment of the stomach for a condition which it does not possess, and the convincing figures, speaking from a statistical standpoint, that 80 per cent of all those, who have for years charged their stomachs with and heaped upon them an endless therapy, have really had their primary pathology located in a place remote to this organ, where it has flourished under the patient's self-medication, and there unmolested by even the physician's earnest attack, it has quietly pursued its lethal

course while remedies directed at its control flew wide of the mark.

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#### PRECAUTION IN GOITRE SURGERY.\*

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While on the Staff of the Mayo Clinic during 1918 and 1919, I had an opportunity of studying goitre, especially the extreme cases of ex-ophthalmic goitre and thyrotoxic types, both before and after operations, as the cases that were very bad surgical risks were treated medically before operation. It would be impossible to cover every phase of this subject so I will attempt to mention only a few of the most important points.

It will be necessary first to give the classification of goitres and some of their symptoms. We will name the kind according to Plummer's classification. Pathologically there are two classes, Hyperplastic or ex-ophthalmic, and non-hyperplastic or adenomatous goitres. Clinically there are four classes, Hyperplastic Toxic, Non Hyperplastic, Non Hyperplastic Toxic and Non Hyperplastic Atoxic. And I might mention under this head carcinoma of the thyroid.

Approximately the cases that come for operation were 32 per cent ex-ophthalmic or hyperplastic and 68 per cent adenomatous or non-hyperplastic. 99.2 per cent of ex-ophthalmic goitres had toxic symptoms, while 20 to 32 per cent of the non hyperplastic or adenomatous types were toxic and 60 to 80 per cent had no toxic symptoms.

The onset of ex-ophthalmic goitre is characterized usually by acute vasomotor disturbances, mental excitement, tremor, tachycardia, loss of weight and strength, cardiac insufficiency, exophthalmus, mental depression, diarrhea and vomiting.

Some cases run acute course and die within the first month of the disease. However, a larger number die within the later half of the first year of the disease. At this time the effect seems to be more

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marked on the heart, kidneys and nervous system. It is during this period that the operative mortality is so high.

After the first year the symptoms in these cases fluctuate with several exacerbations and declines—improvements for a few weeks and worse for a few. During the period of decline of symptoms the pulse slows down, the nervous symptoms improve—in fact all symptoms are better. The patient gains strength and weight, and the metabolic activity is much lower. It is at this period that you should operate. Better judgment as to what should be done and when to do it has considerably lowered the mortality.

A few cases seem to make a fair recovery with or without medical or surgical treatment, but usually relapse.

About 70 per cent of ex-ophthalmic goitre patients are cured by Thyroidectomy—about 16 per cent of the remaining are improved, and about 5 per cent do not improve but the disease process seems to be checked. The mortality at the Mayo clinic is about 3 per cent in the ex-ophthalmic types and about 5 per cent in the thyrotoxic or the degenerative simple goitres, while the mortality in simple goitre without complications is largely due to surgical accident and need not be considered.

Persons with adenomatous or non hyperplastic goitres give a history of first noticing the goitre at the average age of twenty-two years, and the evidence of toxic symptoms show up about the thirty-sixth year. In other words the simple adenomatous types occur at about the age of twenty-two, and show toxicity after about fourteen years—while in ex-ophthalmic goitres only a few months elapse after the appearance of the malady until constitutional toxic symptoms appear.

Simple goitre may occur at any age of life, but is most common at puberty—this being known as the goitre of adolescence, characterized by swelling of the gland from watery colloid material and secretions. These goitres after many years may become fibrous, cystic or calcareous and produce a train of symptoms identically

the same as the worst forms of ex-ophthalmic goitre. It is in these cases that we have the highest mortality. After these degenerative changes and those that take place in the heart, kidney and nervous system, even if the disease process is checked, there is little hope of much improvement, especially in old people. In younger patients you may have a small per cent of improvement.

Until late years, because of the high mortality in goitre surgery, most operations were done only as necessitated by obstruction to respiration or circulation. Therefore, a high mortality led to late operation and late operation to high mortality. For a long time even the masters of surgery did not consider goitres amenable to surgery.

The thyroid gland is undoubtedly one of the most important glands in the body. Its function is involved in the most fundamental process of life—that is the production of energy.

Kendall, of the Mayo Clinic, has separated a pure crystalline powder having the same physiological activity as the gland itself. This substance contains 65 per cent iodine and contains an organic nucleous-protein consisting largely of indol and oxygen. Wishing to emphasize these facts, he has called the compound Thyro-oxy-Indol — abbreviated "Thyroxin."

Plummer, in the study of several thousand cases of goitre, cretins and myxoedematous patients, has shown that at the rate at which energy is produced is controlled by the amount of thyroxin which is active within the cells of the body, while not the only factor influencing the rate at which we live. It probably has more to do than any other substance with the governing of the speed at which energy is produced in the body. He has also shown that the average basal metabolism rate of ex-ophthalmic goitre patients at the time of coming under observation, on the average of 57 per cent above normal. The normal metabolism rate varies anywhere between 10 and plus 10, with zero as a basis.



Ligations of the superior thyroidal vessels will reduce the metabolic rate about 15 per cent. While in 18 days after thyroectomy the metabolism will drop to a little above normal.

The secretion of the gland remains in the body about 18 days.

The metabolic rate is raised or lowered according to the activity or non-activity of the thyroid gland. Therefore, an over activity of the gland would increase the metabolic rate running in cycles of recurrences above basal or normal from plus 16 to plus 100. The benefit of operation is obtained through the reduction of secretions.

It is difficult in every case to tell just how much gland to remove in order to reduce the metabolic rate to nearly a normal limit. Therefore, it is sometimes necessary to operate a second time and sometimes even a third time—depending on the activity of the individual gland—as sometimes a very small gland is much more active than a large one.

Simple goitres in persons under 25 years of age only occasionally necessitate an operation. The older the patient when the goitre appears the quicker degenerative toxic symptoms occur; therefore, surgery should be recommended for these cases at once.

Simple types of goitre, or adenomata, sometime grow to enormous size and may project into the chest as a substernal goitre—causing increase in the size of the veins of the neck, showing impeded return circulation and producing pressure, and degenerative changes in adjacent structures. The x-ray is a very important means of disclosing size and location of such tumors.

It would be impossible to estimate the per cent of malignancy in thyroid disorders as an unknown per cent of goitre patients apply for medical or surgical aid. Out of an estimate of 14,456 cases at Mayo Clinic, 1.19 per cent were malignant. Cancer of the thyroid is sometimes very difficult to diagnose before operation. In no other region of the body is malignancy so well concealed. The reason of this is the

close similarity between benign nodular and malignant masses. Both may be covered by healthy Thyroidal tissues, and not reach the capsule until each has attained considerable size. This point should be stressed as it means that signs of malignancy may not be noticed until it is too late. For this reason there is strong argument for operative interference in all cases of nodular goitre. Not to do this is in my opinion inexcusable and may prove fatal to the patient. Diagnosis may be difficult even at operation on account of inflammatory changes that may follow ligations, hot water injections, or injections of quinine and urea. The indications of malignancy in benign tumors become less with further exposure of the gland, while the reverse is true in cancer. The fact brought out by Kocher that cancer begins within and develops outward makes exploration of the interior of the gland of the greatest importance in detecting any malignancy.

At the Mayo Clinic it has been the experience when the diagnosis of cancer is made clinically, surgery is recommended only under exceptional circumstances, especially when the capsule has been perforated and adjacent muscles and glands involved. In such cases a cure has never been made, even with the most radical operation. In such cases the only surgery indicated is to do a tracheotomy to relieve pressure in the case of suffocation. As a rule it is better to advise the use of x-rays or radium in such cases.

The dangers accompanying operation on goitres depend to a great extent on the condition of the patient. When you have a patient with a high metabolic rate and having a crisis, extreme loss of weight and strength and myocardial changes, you should first put your patient to bed with an ice bag over the region of the heart, give sodium bicarbonate in dram doses every four hours for Gastric symptoms—a stomach tube should never be used. In rapid irregular heart there is nothing that acts better than dram doses of tr. digitalis three times a day for a few days before

even ligation is done. This rest in bed and stimulants quiet the nervous symptoms, slow, strengthen and regulate the heart, thereby lessening the danger of thyroidectomy or even ligation. The greatest mortality at the Mayo Clinic has been from ligation. The explanation of this is that the patient is in worse condition at the time of ligation than at the time of thyroidectomy. After preliminary treatment the patient is given one-sixth of a grain of morphine, then carried to the operating room and if they are not too nervous and excited, one superior thyroidal vessel is cut and tied. This is done under local anaesthesia (one-fifth of one per cent solution of cocaine or novacaine). After the ligation the patient is put back to bed with the same treatment for a week, and if the metabolic rate has dropped and patient is in good condition, thyroidectomy may be done. In the event there has been quite a reaction, temperature, pulse and metabolic rate raised, a second ligation is done and the patient is instructed to go home for a period of three months. During this time the patient usually gains weight and strength, sometimes as much as 50 pounds, and all other symptoms greatly improved. Then thyroidectomy may be done with the smallest degree of risk after this rest period.

At one time adrenalin chloride was used (one drop to the dram of cocaine solution). This shortened the operation by eliminating capillary oozing, which is sometimes troublesome to stop. In January, 1920, Irine Sandiford made a series of experiments by injecting 5 c. c. of 1 to 1000 Ad. with three classes of cases; 1st, those with irritable hearts; 2nd, those with hyperthyroidism, and 3rd, normal healthy men. Those with irritable hearts showed a slight increase in pulse, blood pressure and heat production. Those in class 2, with hyperthyroidism, showed a marked increase in heat production, blood pressure and pulse rate, while those in class 3, normal healthy men, showed no noticeable change. Since this experiment the use of Adrenalin has been discarded.

Those of us who haven't access to a metabolism laboratory are at a disadvantage operating or studying goitres, although one can be governed by the general condition of the patient and give a very good estimate of the metabolic rate. You should never operate while the patient is going down hill. Catch your patient while going up hill and you are usually safe in doing thyroidectomy.

The dangers due strictly to operation are loss of blood, secondary hemorrhage, interference with the respiration, injury to the recurrent laryngeal nerves and to the parathyroids. The recurrent nerves and parathyroids should be guarded by leaving the posterior part of each lobe of the gland, and by care in the use of forceps and sutures. The parathyroid should be protected on account of tetany. However, a case of tetany from this cause usually gets well without any treatment in a few weeks.

In simple goitres a double resection of part of both lobes and isthmus is best. While in ex-opthalmic goitre it is to best to remove one lobe isthmus and part of the other. A drainage tube is usually left for twenty-four hours, patient put in extreme Fowler's position in order that you may get good drainage. The muscles and fascia are stitched with plain catgut and skin closed with subcutaneous stitch.

In the event you should remove too much gland and myxedema should occur, you then have got to give thyroxin. Kendall and Plummer have estimated the amount of a dose necessary for maintenance of normal metabolism to be, I believe, about 7 Mg. every fifteen days. This may be taken by mouth or intravenously. I have followed without access to a metabolism laboratory this simple procedure with the few cases I have had with very gratifying results.

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## HOW TO RESTORE MUSCLE POWER IN PARALYTIC CONDITIONS.\*

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With your kind indulgence I will at this time go into a general detail of the treatment of paralyzed conditions, omitting entirely their etiology.

I will dwell at length on the ambulatory treatment, the time when the acute stage is over and it is desirable to get the patient on his feet.

A patient who has been long in bed, when first put on his feet, is often unable to balance, even if he has sufficient muscular strength, and the problem of cultivating equilibrium in these cases must be taken up by itself and patiently persisted in.

The therapeutic measures which are likely to have a direct favorable effect on the muscles are: (1) massage, (2) electricity, (3) heat, (4) muscle training.

(1) Massage. This consists of four different kinds of passive movements; effleurage, petrissage, kneading and tapotement.

Effleurage, or stroking, is performed by laying the palmar surface of the hand, or the thumb, or the fingers, on the part that is to be treated, and making strokes centripetally with an amount of pressure that can be determined only by the amount of muscular contraction of the part, or by venous stasis, or by any other condition that is to be dealt with. This process stim-

ulates the venous and lymphatic flow, and brings about relaxation of contracted muscles.

In petrissage, the tip of the thumb and the tips of all the fingers, are employed to make loosening, circular movements. This kind of passive movement is used to loosen adhesions, to disperse infiltrations, and to promote the circulation in the part that is manipulated.

Kneading consists in grasping a muscle, for example the biceps, with both hands and stretching it away from the bone in the direction of the venous current, the hands contracting; the muscle is allowed to recoil while the hands relax. This gives a great mechanical stimulus to the muscle. A special form of friction is given to nerve trunks by drawing the fingers sharply across the long axis of the nerve, and at right angles to it. It has been demonstrated that this nerve friction can at times cause contraction of muscles which will not react to electrical stimulation, and the application of the stimulus to the nerve, rather than to the muscle, brings about a greater contraction of the muscle, when one is obtained.

In tapotement, the part that is to be treated is struck sharply again and again. The striking is usually done with the ulnar surface of both hands, the blows being made in quick succession. The effect of tapotement is chiefly that of stimulating the muscles mechanically. It increases their irritability, and when slight nerve impulses come to them, they are thrown into marked states of contraction.

Each of these types of passive movement has its use in the treatment of the paralyzed muscle. Effleurage is chiefly, but not exclusively, valuable in loosening the tight contraction of the muscles, and in keeping certain muscles, such as the flexors, from getting into a state of contracture. The value of petrissage has already been mentioned. The use of kneading is to increase the nutrition of the muscles, which, on account of disuse, are apt to atrophy, and to prevent or to overcome, the atrophic tendency. The friction of the

\* Read before the First District Medical Society at Savannah, Ga., and before the Sixth District Medical Society at Macon, Ga., 1921.

nerve increases its conductivity and also increases the mechanical irritability of the muscles. Tapotement also increases the irritability of the muscles, so that in cases in which only slight nerve impulses are being received, these may have more motor effect than under ordinary circumstances.

In those cases where there are residual paralytic symptoms, the kneading should be directed against those muscles which can not be moved or which are not in a state of contracture, and those muscles control of which is most important for the individual to acquire, for example, the extensors of the forearm, the peroneus, etc. In no case should kneading be applied to the muscles that are in a state of contracture.

When we consider in detail the paralyzes of apoplectic origin, we find that certain muscles are more involved than others, which means that each case must be dealt with individually, for there are considerable differences in degree and distribution of the paralyzed muscles.

At the same time, each muscle or muscle group, should be considered in relation to its condition, for example, its tonicity. When these points are worked out, it will be simple to determine which muscles should be stimulated and which should have the treatment to bring about a relaxation. Thus, when there is a contracture, the flexors should be treated by effleurage of a very light form, and the corresponding antagonists should be exercised by kneading and tapotment.

One thing must be remembered, namely, that the passive movements are of local value only, that they do not promote the passage of nervous impulses from brain to muscle, such as the active movements develop.

(2) Electricity. The use of electricity in restoring muscle power in paralytic conditions is at present a much-discussed subject.

O. T. Osborne, Professor of Therapeutics, Department of Medicine, at Yale University, says in his recent (1921) book on "The Principles of Therapeutics," that the

galvanic or constant current is perhaps the one of most importance in treating the general system by electricity. This constant current will cause a reaction of paralyzed muscles when the faradic current has ceased to cause such reaction. He emphasizes the fact, however, that the galvanic current may do harm as well as good, and that less potential harm lies in the faradic, interrupted current. The constant current must not be used on nerves or muscles that are inflamed; but when a muscle is fatigued it may be restored by passing the constant current through it for several minutes and then causing the muscle to contract several times, either by interrupting this current, or better still, by the faradic current.

Osborne adds that electricity must not be used on muscles paralyzed by a central lesion, as an apoplexy, until at least six weeks after the injury occurred. Also after paralysis from an acute inflammation, as anterior poliomyelitis, electricity must not be used for some weeks after all active symptoms have ceased.

Falling back on my own experience, I consider it a useful form of gentle exercise, but it is disagreeable to some patients, and to young children it is often a source of terror. That the use of electricity has done much harm is undoubted, because not only is the use of strong currents admittedly injurious, but the routine use of electricity often deceives the physician and patient into thinking that adequate treatment is being given, while measures of admitted value are neglected.

(3) Heat. Heat is of value either as radiant heat from electric bulbs or by some form of oven, because it raises the temperature of the limb, and thus offers more favorable conditions for muscular contractions, due to the increased oxygen, which is favorable to the nutrition of the muscle and unfavorable to the growth of the streptococci.

(4) Muscle Training. Muscle training is, in my opinion, the measure of the greatest value at this stage. It attempts to drive an impulse from brain to muscle to enable it, if possible, to open up new paths



around affected centers in the cord.

The connection between these centers with each other and between the centers and the muscles, is most extensive and complex, and the facts given as to the predominance of partial paralysis, show that, as a rule, the entire nervous control of a given muscle is not wiped out as a whole, but only in part. On this basis rests the claim of muscle training, a measure which in my opinion is one of the most powerful factors in determining ultimate muscular function.

The effect of this muscle training is accentuated by placing the patient before a mirror so as to enable him to observe the contraction and relaxation of the muscles which are to be affected, and to center his effort more successfully on muscles to be developed.

As to the efficacy of the restoration of muscle power after infantile paralysis, Dr. Lovett, of Boston, made the following observations of the epidemic in Vermont by means of the muscle test. The period covered was three months.

The chance of improvement in affected but not totally paralyzed muscles, under expert treatment by muscle training, was 6 to 1; under supervised home exercises, 3.5 to 1; under home exercises with supervision, 2.8 to 1; while untreated affected muscles in these patients showed an improvement ratio of 1.9 to 1. These figures represent cases at the end of the first year. They are all from the Vermont group, and were treated there.

In conclusion, I want to sound a note of warning to those who expect a too-rapid improvement. Fatigue and overtreatment by massage and muscle training are detrimental factors of the highest importance. The advice often given, to use affected limbs as much as possible, is in my opinion, the worst advice that can be given. It is difficult to underuse such muscles, but fatally easy to injure them by overuse.

## GALL BLADDER DISEASE.\*

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It was only in the first decade of the present century that the appendix began to be generally recognized as a potent cause of "acute indigestion" and the earliest writers appreciated the significance of advanced cases but were by no means agreed upon the interpretation of the early phenomena. We all remember the importance laid at one time upon stones, grape seeds and foreign bodies in that organ. To-day the thorough significance of appendix pathology is familiar to all.

Following in this wake has come the gall bladder, and while the knowledge of its symptomatology and pathology have been well developed, the facts are perhaps not in as general distribution among the profession as they should be.

The function of the gall bladder is not understood. Various theories have been propounded but none have exactly satisfied. To mention a few: The gall bladder acts as a storage chamber for bile, it pumps the bile into the duodenum, it dilutes the bile with mucus, it controls the rate of flow of the bile, and lately some investigators claim to have observed that it stores bile by concentrating it, in absorbing about 80 per cent. of its fluid content. Some of these or all of them may be more or less correct, but they are none of them past the stability of an hypothesis. On the other hand the experience obtained after the removal of thousands of gall bladders demonstrates that nature is able to function apparently normally without this organ, although there is evidence to show that the common and hepatic ducts dilate in what may be a compensatory effort. The gall bladder has a

function which is not understood but that function is evidently not essential to life nor even health.

The mass of evidence to-day indicates that infection reaches the gall bladder through the blood stream, either directly or by way of the bile. That it arrives from the bowel by way of the bile stream is not accepted and certainly would only be an unusual occurrence. Recent experiments have demonstrated that bacteria from isolated sources have a predilection for the gall bladder and the common experience of constitutional infections as typhoid and puerperal sepsis being such frequent antecedents of cholecystitis corroborate this clinically. Pregnancy and obesity are associated factors in some mysterious relation.

Like the appendix the symptoms may be acute or chronic and may be evidenced locally or reflexly. Differing from the appendix, the acute attack, while often more painful, is not so treacherous and rarely endangers life. While perforation and rupture do occur and while malignancy does supervene the percentage of such instances is low. Stones are incidents in the infection—"post hoc" and not "propter hoc"—although they often furnish serious complicating problems.

Acute gall bladder attacks are generally one of the most characteristic phenomena with which we are confronted. The pain occurs suddenly or arrives at a maximum in a short period. It centers over or below the right costal arch and radiates along the rib line or directly through to the back. It may suggest a dull splitting force, a cutting agony or pressure toward the thorax. The attack may last a few minutes or several hours—it may subside gradually or may require morphine. There may or may not be nausea and vomiting. There is frequently tenderness for some time afterwards in the right epigastrium but the entire field may be relaxed and not sensitive. Such attacks may follow each other at short intervals or there may be

respite for months or years with no other features whatever, the patient enjoying excellent health. Jaundice should be regarded as an incident, coming on during an attack or insidiously in the intervals. While a stone in the common duct is the usual cause it should be borne in mind that the mere inflammatory process or external forces may have the same result. Temperature, chills and leucocytosis are variable.

On the other hand we may not have acute attacks or at least very few. The distress may be all digestive, occurring upon irregular occasions over a period of months or years. Such periods may occupy days or weeks or may become continuous. There is no definite picture. However, the predominating features are a sense of epigastric weight, gas pressure and belching with more or less burning and sour regurgitation. Long standing trouble may develop actual epigastric pain and vomiting. Such distress may or may not be related to quality or time of food. It is not uncommon for years of this indigestion to be punctuated by acute attacks of cholecystitis which serves as a valuable clue when they occur.

The x-ray is of some service in diagnosis. In a certain number of instances stones may actually be demonstrated but fleshy individuals, imperfect technique, and transparent stones render this procedure of doubtful value. In addition it must be borne in mind that a great percentage of diseased gall bladders do not harbor stones. X-ray observation of the stomach and duodenum may be of assistance in revealing adhesions, the result of chronic pericholecystitis. In regard to the recent exploitation of the duodenal tube etc., the writer feels that such procedures are not warranted, that the evidence obtained is hypothetical and that the method is one of the pseudo-scientific medical fads which always have their day and then pass into more or less deserved obscurity. Gall bladder disease should be



recognized rather by intelligence than by such precarious measures.

Complications are several. Empyema of the gall bladder occurs while there may be more or less acute or chronic adjacent peritonitis. There may be gangrene or perforation. Stones may block the common duct or may work back into the hepatic duct and even into its branches in the liver. Infection may travel along the biliary channels resulting in a hepatitis. Carcinoma is a factor to be reckoned with while pancreatitis is not uncommon.

The differential diagnosis can only be enumerated. Stomach or duodenal ulcer, bowel obstruction, appendicitis, renal colic, pancreatic disease, cardiac crisis, must all be ruled out and at times the evidence is so eccentric that a diagnosis of gall bladder disease must be arrived at by exclusion.

Treatment is both medical and surgical. Mild cases may obtain relief by attention to diet, and bowels, with a legion of drugs which are recommended. All foci of infection elsewhere should be sought and eliminated. There is little to indicate, however, that what we may term established cases can expect anything positive short of surgery. In this regard, drainage methods have been found wanting and the removal of the gall bladder is accepted as the logical procedure. Other methods only leave an infected gall bladder to repeat its escapades at a future date.

In closing let me emphasize that a careful history reviewing the situation as far back as childhood and refreshing the patient's memory in regard to what he regarded as colic, ptomaine poisoning, acute indigestion or just plain pie or cabbage is of more value in proving the case than all other methods combined. Also, while gall bladder disease is regarded as present in middle and later life the majority of patients give a history of years standing so that its beginning in younger persons must be sought for and studied.

## GASTRIC AND DUODENAL ULCER.\*

J. C. Johnson, M. D.,  
Atlanta, Ga.

I have selected ulcer for my subject tonight because I am sure that every one present has some interest in this common and often complicated feature of Gastro-intestinal disease. I say feature for the reason that I do not believe that ulcer is a disease within itself, but only a part or product of a progressive pathology.

I do not believe that it is caused by any one thing, but by an association or sequence of several things. This is why experimental ulcer has never been successful. Experiment cannot supply the conditions or the order of physiological perversion. We may theorize about ulcer as much as we please, but no theory of ulcer can be converted into fact which detaches its formation from the histological and biological forces of normal tissue change. So any logical study of ulcer must be based upon clinical observation, medical and surgical, not only of the condition of the stomach and the intestines, but of the body at large, coincident with ulcer. And a correct definition of ulcer must include not only the facts of these conditions but of those of an ulcer occurring anywhere else in the body.

We will thus find that the only difference between ulcer of the stomach or duodenum and an ulcer of any other organ, is that due to the difference in tissue and in function. If this is so, and we are obliged to believe that it is so, we cannot look upon ulcer as we do a stone in the gall bladder or kidney, or as something deposited and growing by accretion, or that by removing it we at the same time extirpate a disease; and yet, such an opinion prevails and often leads to expectations, by the laity, and by some physicians, of impossible results from treatment both medical and surgical.

I hope that I may be permitted to say that right here is one of the weakest

\* Read before the Meeting of the Staff of the Davis-Fischer Sanatorium, December, 1921.

points in the alliance of medicine and surgery, and one of the main reasons that medicine and surgery are sometimes called into question, if not disrepute, in the treatment of ulcer. I presume to say that as medicine does not undertake to change mechanical conditions due to ultimate organic change, so does surgery not contemplate and does not undertake to restore a primary function which has been utterly lost, or seriously impaired, but only to remove all obstacles to the restoration of function per via naturalis.

It does well, if while doing this, it is able to preserve or encourage compensatory action. As I understand it, the treatment of ulcer, if intelligent and successful, must be based upon the knowledge we have of it, and for this reason it is essential that this knowledge not only be exact but comprehensive. It may be exact by simply studying ulcer as an object. It cannot be comprehensive without taking into consideration everything which may predispose to it, accompany or follow it. Likewise, no treatment can be exact or comprehensive which does not take all these into account.

The question then is, why ulcer, what makes it start, and what makes it continue. As unreasonable as it may seem, it is easier to answer the first question than it is the second. It is because ulcer is not a process, but a result. It has no positive property of its own, and therefore no power of progressing or healing. Ulcer does not spread, it is spread. It does not heal. It is healed. Like any other inert mass, it changes only when changed by surrounding influences.

What starts an ulcer has long been a matter of debate, for the reason that in any disease the cause does not always appear in the effect.

If ulcer cannot start itself, cannot progress or continue, and the cause is not present or apparent, it can be proven only by circumstantial evidence, and attempts to do this, is what has led to so much controversy and such diversity of opinion.

It will be readily admitted that none of this evidence can be competent unless it is present in every case of ulcer. One writer has gone so far as to say that 50 per cent of gastric disorders are ulcers. Another has said that every case of hyperchlorhydria is in fact an ulcer. These writers know what they are talking about, but are careless in what they say. They have tried to build the whole truth out of half the substance, and it can't be done. There is no doubt that a large percentage of gastric disorders are accompanied by ulcer, and that ulcer is the most attractive and insistent feature of these disorders, but to say that 50 per cent of gastric disorders are ulcers, or due to ulcer, is not capable of demonstration clinically, by operation, or the results of operation. We don't need statistics to confirm this statement. We need only to follow up the history of some of these cases from beginning to end, and find, as we do, that long after an ulcer has been healed, or has been removed, gastric disorders continue unless relieved by continued treatment. The presence of hyperchlorhydria with many ulcers, is certainly suggestive of a causative relation, and it is true that the hyperchlorhydria must be corrected before the ulcer can be healed, and it is often the case that the persistence of hyperchlorhydria prolongs the treatment for ulcer, and is one of the chief symptoms of disorder which so often continues after operation for ulcer. But that does not mean that hyperchlorhydria itself is capable of producing ulcer or of prolonging it, for the hyperchlorhydria cannot be removed until other conditions are corrected. The point is too obvious to elaborate. We should not be misled in diagnosis, in definition of pathology, or in treatment, by any one symptom or condition, and certainly not bind ourselves to any theory which is not elastic enough to include the possibility of different causes and different conditions for different ulcers.

Ulcer often exists when it is not suspected, and is often suspected when it does



not exist. Errors in diagnosis are usually due to looking for too much or too little with ulcer, and to attaching too much importance to some things and too little importance to others.

Ulcers are not of the same size, site, or period of development, and for this reason do not give rise to the same symptoms. The position of the stomach may change the point of tenderness or pain, as also the character of functional disturbance. Only by determining all the conditions present, can the necessary knowledge be obtained and the needs of each particular case supplied.

There are three means by which an ulcer can be positively diagnosed and exactly located. By the Einhorn thread test, the x-ray, and laparotomy. Neither of these is infallible. The thread test will seldom register an ulcer on the greater curvature or when the healing of an ulcer is far advanced. There must be some capillary oozing at least. The x-ray will not picture an ulcer until a crater has developed. On the other hand, it may show deformities resembling those due to ulcer, and yet the trouble may be one in which the stomach or duodenum is not primarily involved.

I am not sure that the most careful surgeon may not overlook an ulcer while looking for it. At least I have seen cases where exploratory incision had been made and the ulcer had not been discovered. The incision must have been made in the early period. But the advantage of all these methods is so great, neither can be dispensed with in doubtful cases. Sometimes the thread will show what the x-ray does not show and vice versa. Sometimes laparotomy will discover what is impossible for any other means to discover.

With the complications and sequela of ulcer, we are all familiar, or think we are. I doubt if any of us really know the exact disturbance caused by the production and the progress of an ulcer. We are influenced more by our idealism of ulcer, than

by its actual character and conduct—more by estimate of its effect on local conditions and relations, than by estimate of the effect of these relations and conditions upon it.

We look for stenosis, adhesions, hemorrhage, perforation, but before any of these things happen, a multitude of things have been going on, the correction of which would prevent these complications. There is no physiological reason why an ulcer of the stomach should not be healed like an ulcer of the mouth or elsewhere, without leaving cicatricial tissue. When it does heal with cicatricial tissue, it is proof of neglected or improper treatment, or some depraved habit of nutrition.

I have never seen a fatal case of hemorrhage from ulcer, but prostration in some has been alarming, and the subsequent anemia has been profound and very difficult to overcome. I have never noticed that one hemorrhage predisposes to another. It seems that hemorrhage from ulcer is, in the main, accidental, and due to local conditions, in contrast to hemorrhage from other causes, such as T. B. uterine Fibroids and Leukemia, in each of which there is not only a local lesion but a constitutional factor, more active at one time than another but always encouraging a tendency to hemorrhage.

Among patients with ulcer who have come under my observation, perforation has either been exceedingly rare or I have failed to recognize it. But the possibility of perforation exists in every patient, and it is the one particular thing to be most dreaded. There is no way that I know, to tell when it may happen or why it happens in one and not in another. Of course the depth of the ulcer is the first and most favorable factor, but the necrosis must be more rapid and complete in such cases and the effort at healing must be very unsuccessful. I can conceive of violent peristalsis as an immediate cause, but that alone is insufficient. It is remarkable how high intragastric pressure can be raised without localized damage to the gastric wall,—

instance gastric tetany, or stiffening in stenosis from cancer.

The prognosis in ulcer is based upon the absence or presence of so many conditions and so many possibilities, any reference to it seems idle. If I am not mistaken the majority of our surgical brethren consider the prognosis very doubtful at any stage and under any circumstances, when medical means alone are depended upon. This is natural. Even the general practitioner may be a little sceptical on this point, and gastro-enterologists may not agree in all particulars. No two men see the same thing alike. This is the proof of competent testimony. But scientific truth is not partial to her observers, and, at our best, all of us may be wrong, or not altogether right. There are many cases which may be cured by internal means if seen soon enough, often enough, and long enough, and the patient is faithful in carrying out instructions. There are some cases which cannot be cured by medical means, but whose development can be checked, and conduct controlled. Even stenosis may be greatly benefited. I have seen stenosis get well without the knife, but very, very seldom. There is no remedy for cicatricial tissue but the knife. Its effect may be lessened and its character somewhat changed, but so long as its cause remains, it continues and may increase.

The healing of an ulcer by medical or surgical means is often hindered by factors outside the stomach, chief among which is a lack of tissue metamorphosis constructive, due to some coexisting disease, and not infrequently they are not healed because the patient lacks intelligence or the required tenacity.

Surgeons are usually not much interested in medical treatment till it stops, and I don't blame them. Internists are not much interested in surgical treatment till it begins, and I don't blame them. And yet there is room enough for both in the laboratory, kitchen, and dispensary,

and there is room enough for both at the operating table. The combined intelligence of us all is not too much for the good of any case.

There are two important indications in treatment which should concern us all. I believe that many patients fail to improve for lack of proper nourishment, and general functioning. The rest cure for ulcer can be carried to extreme. It is well to put a certain class of cases to bed, such as hemorrhagic, very anemic or nervous, or weak, and when examination shows a thin gastric wall, but it is especially necessary to avoid creating or encouraging a sense of incapacity or invalidism, if possible. When not positively contraindicated, a liberal but carefully selected diet should be not only allowed but urged. Not only does the general welfare of the body require it, but the stomach itself must have it for its own ultimate good. It cannot repair itself without fit material for repair, nor can it preserve functions unless these functions are conservatively exercised.

It is not easy for an internist to say whether or just when a given case should be operated upon. Sometimes it would be easier to advise operation than to carry the responsibility of medical treatment. It is not fair to the patient or the surgeon to advise operation without sufficient reason. It is likewise not fair to delay operation when indicated. There may be different reasons in different cases. That is a matter for individual judgment. There is one question which may be asked in every case. Would the patient be better off if cured by medical or surgical means? In other words, in which event would there likely be less disturbance of anatomical relation and greater opportunity for return to normal functioning. Those who have followed cases to the operating table and watched them afterwards, and have also records of others who have gotten well by other means, will appreciate the sincerity and impartiality



of this question. However, this question cannot be aswered finally, until sufficient time has elapsed to develop the end results from each method. For the present, the most successful treatment of ulcer cannot be properly called medical or surgical, but *pro re nata*.

### SIZE, SHAPE AND POSITION OF THE STOMACH IN DIAGNOSIS.\*

Chas. D. Cleghorn, M. D.  
Macon, Ga.

The outlines of the stomach when seen in the course of an x-ray examination only show in so far as the organ is filled with the meal composed of some opaque salt, as barium or bismuth, thoroughly incorporated with a vehicle which will hold the heavy salt in suspension. If the stomach has a normal tonus it will contract upon the meal, holding its tubular shape and the true and complete outlines of the stomach are seen, but if there is a certain amount of atony, the meal drops to the most dependent portion of the stomach and only this part can be outlined. It is, therefore, necessary to fill the stomach completely.

The normal stomach varies in size even in health, according to various factors. The age of the patient, his size and his food all must be considered. But there are, in the adult, certain general measurements which are fairly constant. The normal stomach should be filled up to the level of the oesophageal entrance after the indigestion of fourteen ounces of an opaque meal. In cases of dilatation this amount has to be increased proportionately, and in cases of contraction or decreased lumen the amount which it is possible for the patient to swallow is reduced. An increased capacity points to one of the following pathological conditions:

1. Atony.
2. Chronic dilatation from habitual overdistension.
3. Acute dilatation. (Rare.)
4. Obstruction at the pylorus.

### 5. Gastropotosis.

To differentiate between these causes is not difficult in most cases.

(1) In atony the meal sinks to the most dependent portion of the stomach, which is low in the abdomen. The tubular nature of the stomach is lost, there is little or no peristalsis, and if the level of the food is above the pylorus the meal pours through the sphincter as from a pitcher.

(2) In chronic dilatation the tubular form of the stomach is usually retained, peristalsis is present, though it may be decreased in force, the ptosis is not marked, and the emptying time is fairly normal.

(3) Acute dilatation is not a condition which ordinarily falls into the hands of the radiologist, and it has not been my fortune to see but one suspected case. This man had such an irritable stomach that food was not retained, and the plates taken after a thorough saturation with bromides were not satisfactory, since an artificial atony was produced.

(4) Obstruction at the pylorus is evidenced by a stasis of the food in the stomach; active, or over-active peristalsis; but no ptosis, and the tubular form of the organ remains.

(5) Gastropotosis is usually due to a faulty position, and a tendency to retention of food is marked on account of the position of the pylorus, which being higher than the low greater curvature does not easily allow the passage of food. Peristalsis is present but lessened, and it requires a large amount of food to fill the cardiac end of the stomach in the standing position. If the patient lies down, this amount is decreased.

A decreased capacity may be due to:

1. New growth, either benign or malignant, or gumma.
2. Hypertonus.
3. Spasm.
4. Increased abdominal tension.
5. Oesophageal obstruction or starvation.
6. Post operative deformities.

(1) The diminished capacity due to a new growth is determined by the observ-

\* Read before the Sixth District Society, Macon, Ga., December, 1921.

ance of the tumor itself, a discussion of which is not possible at this time. Suffice it to say that the filling defects are quite characteristic and usually unmistakable. (2) Hypertonus and (3) spasm are allied conditions evidenced by an overaction of the musculature with the attendant wave shadows and filling defects. (4) Increased abdominal tension is discernible from the inspection and palpation of the patient, and must be brought to the attention of the radiologist in order that he may be on his guard to discount it as a cause of reduced gastric lumen. It may be ascites, extra gastric new growth, or physiologic tumors. (5) Obstruction of the oesophagus and starvation have an identical effect on the stomach. The latter diagnosed from history, and the former easily discovered in the course of administration of the opaque meal. (6) Postoperative adhesions and deformities must always be in mind when the patient gives the history or external evidence of laparotomy. There is no characteristic defect but there are usually points in the history that help us to rule out a new growth even without a thorough clinical examination.

As regards the shape of the stomach we must remember that the infant has a nearly spherical stomach which only elongates as the upright position is assumed, and it is almost the age of puberty before the greater curvature reaches the umbilicus. From this time on the organ remains in health the same shape. And let me say that the stomach rarely assumes the pear shape which it is said to have by a large number of anatomists. The stomach is a tubular organ flattened from before backward and approaches in general the shape of the capital letter "J." This shape varies somewhat with the habitus of the individual, the asthenic type being like an elongated fishhook, and the hypersthenic type being nearly obliquely situated in the abdomen from above downward and to the right. These natural positions and shapes must always be remembered when making a report. There are, however, a few abnormal shapes assumed by the stomach

which may give us valuable information. The steer horn shape, a gradual reduction in calibre from above downward, may indicate a chronic reduction in the capacity of the antrum due to induration or spasm. The exaggerated diagonal shape nearly always indicates pathology in the lower right quadrant, either appendicitis or perityphlitis. The transversely held stomach with faulty antrum outline and pressure defects of the gall bladder gives us the picture of a gall bladder condition, if supported by other evidence; and pressure from other extra gastric masses may indicate which other organ in the abdomen is at fault. The changes in shape due to peristaltic waves must be thoroughly understood before one may venture to interpret radiograms, and, it must be remembered that in this same connection the occurrence of an hour-glass stomach with the upper and lower halves nearly separated is a deformity sometimes pointing to a grave condition, and at other times, when borne out by clinical findings, a matter of slight importance.

The presence of a distinct and stable incisura between the mid part of the stomach and the pyloric antrum is more than apt to point to the presence of an ulceration on the lesser curvature, and often at a point nearly opposite the incisura.

The position of the stomach cannot be safely determined by its appearance at operation, for the administration of an anesthetic tends to inhibit its muscular action. The normal position for the adult stomach is largely to the left of the median line, from the cardiac end which is tucked close up under the left leaf of the diaphragm, to the pyloric antrum. This portion crosses the median line just above the navel to empty into the duodenal cap through the pyloric sphincter near the gall bladder. The more thick-set the patient, the more likely are we to find the stomach approaching the transverse position and conversely, the more lean and long patient usually has a stomach hanging entirely on the left side except the actual pylorus. Any of the surrounding organs, the liver, gall bladder,



spleen, pancreas, colon, small gut, or pelvic or genito urinary organs, may cause, through their own pathology, the gastric position to become altered. The usual causes for such altered position are (1) enlargement of a neighboring organ, or (2) adhesions from it to the stomach following acute inflammation. Extreme atony may result in the greater curvature descending into the true pelvis, and the pylorus assuming a position below and to the left of the navel. A left subphrenic abscess may displace the cardiac end of the stomach downward and to the right. Cases have been reported of the stomach passing through the diaphragm into the pleural cavity, but it has not been my good fortune to see any such cases.

It will thus, I hope, be apparent that when the roentgenologist in his report states that the size, shape and position of the stomach in any given case is so and so, he is not using up time and energy in the statement of negligible facts. The knowledge that the stomach is normal in size, shape and position or that it varies from the normal in some respects, allows us to draw certain conclusions from the information which are of distinct value in determining the exact pathological condition present.

### SUBPHRENIC ABSCESS.\*

#### Report of a case successfully operated.

L. Woodfin Grove, M. D.  
Atlanta, Ga.

In casting about for a subject of interest to be presented before this meeting, subphrenic abscess was selected for the following reasons: (1) because the condition is comparatively rare, that is, it rarely appears in the literature of today; (2) because of great difficulties in diagnosis, especially before serious complications develop; (Even in light of our modern diagnostic methods, the most important of which is probably the fluoroscopic screen, some cases of simple subphrenic abscess are practically impossible of diag-

nosis.) (3) because of the persistent high mortality rate, which appears to be so directly influenced by the time of operation; and (4) because of having had an unusual case, which gave rise to features not heretofore reported, and which are very unusual in this condition.

#### History.

The history of subphrenic abscess is interesting for the reason of its having appeared so late in medical literature; the first case being reported as late as 1824 (Barlow) and even at that time was of interest only to the pathologist. The first clinical diagnosis was made as late as 1845 and surgical interference was not attempted until 1880. This probably is explained by the fact that before the days of accurate diagnostic methods, the condition must necessarily have been very difficult of diagnosis.

No. 1

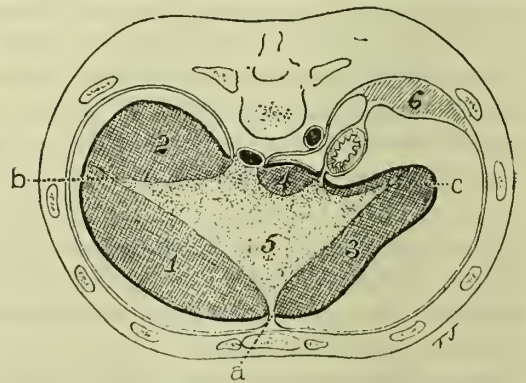


Diagram (after Braun) to show the various areas where small subphrenic abscesses may be located, and to which they may be limited. When the collection becomes larger the abscess may spread and occupy more than one of these areas. 1. Right intraperitoneal anterior subphrenic abscess. 2. Right intraperitoneal posterior subphrenic abscess. 3. Left intraperitoneal anterior subphrenic abscess. 4. Left intraperitoneal posterior subphrenic abscess. 5. Right extraperitoneal subphrenic abscess. 6. Left extraperitoneal subphrenic abscess. a, Falciform ligament. b, Right portion of the coronary ligament and the right triangular ligament. c, Left portion of the coronary ligament and the left triangular ligament.

#### Anatomy.

A detailed study of the anatomy of the subphrenic space will not be attempted here, the reader being referred to more elaborate authorities for this information, but a brief survey of the gross anatomy is probably necessary for a comprehensive study of the condition. The subphrenic space is divided by the coronary ligament into an anterior and a posterior subphrenic

\* Read before the staff meeting of the Davis-Fischer Sanatorium, Atlanta, Ga.

space, which is sub-divided by the lateral ligament into a right anterior and posterior and a left anterior and posterior space, all of which are intraperitoneal. In addition these are supplemented by two extra-peritoneal spaces, namely, the space between the folds of the coronary ligament and the space around the upper pole of the left kidney. Some authorities feel that such minute classification is of very little interest from the clinician's point of view and suggest the advisability of the subphrenic space being simply divided into an anterior inferior subphrenic space, in which abscess occurring gives rise mainly to intra-abdominal symptoms, and into a posterior superior subphrenic space, in which abscess occurring gives rise principally to thoracic symptoms.

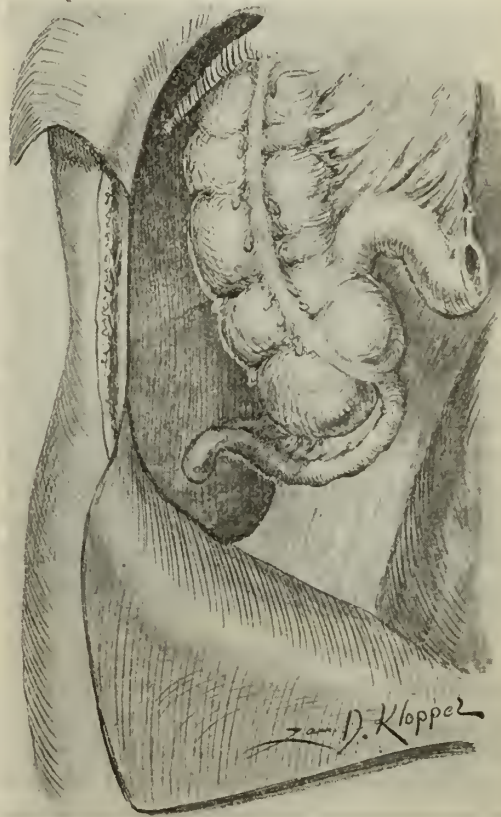
#### Pathology.

The cause of subphrenic abscess is extremely interesting. It occurs in order of frequency as follows: (1) appendiceal abscess, or neglected abscess of right lower quadrant; (2) rupture of the stomach or duodenum; (3) extension of infection from the pancreas, giving rise to the rarest type of abscess, occurring in the left posterior subphrenic space; (4) result of a primary liver abscess, which later points to the surface, resulting in a subphrenic abscess; and (5), a cause which is denied by some, the extension of infection by way of the lymphatics from the thoracic cavity downward through the crus of the diaphragm.

Assuming that appendiceal abscesses act as the immediate cause of the larger percentage of subphrenic abscesses, it is interesting to study the mode of entrance of infection, the most logical of which appear to be the following: (1) infection as a result of gravity; (As patient lies on the bed, the right kidney with the mass muscles of the right lumbar region produces a ridge and, as a result, there is established two planes of drainage; one upward into the subphrenic space and one downward into Douglas's pouch in the female or the rectovesical pouch in the male, predisposing to extension of active septic

material into these given spaces); (2) an extension by continuity along the extra-cellular tissues, giving rise to primary ex-

#### No. 2



Showing most usual route of extension into subphrenic space following appendiceal abscess. (Keen's Surgery)

traperitoneal subphrenic abscesses; (3) extension along the lymphatics of the deep epigastric artery; and (4) extension through the portal vein, resulting in a primary hepatic abscess, which later ruptures onto the surface, producing a secondary subphrenic abscess.

The bacteriology of subphrenic abscess apparently is variable, but the organism given first place is the bacillus coli; (2) streptococcus; (3) pneumococcus; (4) staphylococcus; and (5) numerous anaerobic organisms.

The abscess cavity frequently contains a certain amount of gas, which is either the result of rupture of a proximal viscus, or what some describe as a spontaneous gas formation as the result of the offending organisms. The presence of gas is of



considerable diagnostic value when studied under the fluoroscopic, and it occurs in approximately 25 per cent of cases. The cavities occasionally also contain one or more fluids, following rupture of a hollow viscus, as the stomach, duodenum, or possibly the transverse colon.

### Symptoms.

The onset of subphrenic abscess may manifest itself as a part of the primary suppurative condition; as an immediate post-operative sequela of a primary suppurative condition; or, as the rarer type, which is characterized by active symptoms of the abscess appearing later, as manifested in the case here reported. The first two types of onset mentioned are of about equal occurrence. The longest time between the primary suppurative condition and the active symptoms of abscess heretofore reported was approximately eighteen months, while in this case there was an interval of approximately two and one-half years.

The general symptoms, as would be expected, are those usually noted in chronic sepsis: a low grade leukocytosis with accompanying blood picture of a secondary anemia; a characteristic clinical manifestation of sepsis, namely, low grade temperature with occasional chills and sweats, all of which were present in this case.

Local symptoms are dependent largely upon the location of the primary abscess. If in the anterior inferior subphrenic space, we have symptoms of upper intra-abdominal infection, while with an abscess primarily located in the posterior superior subphrenic space, we expect symptoms more suggestive of a thoracic lesion. The latter is characterized by a possible localized pneumonia of the lower lobe with spastic fixation of the diaphragm. This is caused either by pressure from below or is the result of spasm caused by the associated inflammatory condition. This was especially marked in our case, as studied under the fluoroscopic. It is of interest to note that in cases where abdominal symptoms predominate there is seldom a downward displacement of the liver. This

is explained by the fact that as a result of the inflammatory condition, which early involves the transverse colon, there is fixation of the liver margin to the transverse colon and diaphragm, which prevents a downward displacement. We give this as the most common and trustworthy differentiation between a subphrenic abscess of the anterior space and a primary hepatic abscess. In the latter we get an early displacement of the liver downward.

### Treatment.

Treatment of the condition is necessarily surgical as soon as practicable after the diagnosis is made. The methods of approach are numerous, but the three most practical are as follows: (1) the costal marginal incision, first described by Murphy, in which an effort is made to enter the subphrenic space by displacing downward the transverse colon, thereby preventing entry into the free peritoneal cavity; (This incision is especially adaptable to subphrenic abscess primarily involving the anterior spaces); (2) the low posterior incision, which is made over the twelfth rib, followed by an effort to displace the pleura upward, thereby being able to enter the subphrenic space without entering either the pleural or peritoneal cavity; (3) and the most practical and most used method of approach, is via the transpleural route. A portion of the ninth and tenth ribs are resected in the posterior axillary line, followed by fixation of the visceral and parietal pleurae, which is either done at the primary operation or in two stages. When the two-stage operation is done, the abscess is opened at the end of 36 to 48 hours, after sufficient adhesions have taken place to thoroughly wall off the free pleural cavity, thereby preventing a suppurative pleurisy or empyema.

### Prognosis.

Prognosis in these cases is necessarily grave, when we consider that most of the cases are those of neglected sepsis in which there has been for a number of weeks a chronic abscess proximal to, if not involving one or more of the vital organs

of the body. The most common complications are rupture into the stomach, which is practically always fatal; rupture into the intestine or peritoneal cavity, which is most serious; rupture through the diaphragm into the pleural cavity, giving rise to empyema; or possibly rupture through the lung substance into a bronchus, giving rise to a bronchial fistula. The frequency with which these complications are noted, emphasizes the fact that in the hands of the average physician, even though he is equipped with the modern methods of diagnosis, early diagnosis of subphrenic abscess is difficult and requires most painstaking study. The importance of early diagnosis is most emphatic when we study the mortality in this condition. It appears that the mortality rate is directly proportionate to the duration of the abscess. The percentages given range from 30 to 56 per cent, depending on whether diagnosis is made within first to second week or later. There is an increase of 15 per cent mortality in cases where operation has been delayed as long as seven or eight weeks.

#### CASE REPORT.

Mr. D., white, lawyer, aged 40, presented himself for examination November 4, 1920, with history as follows:

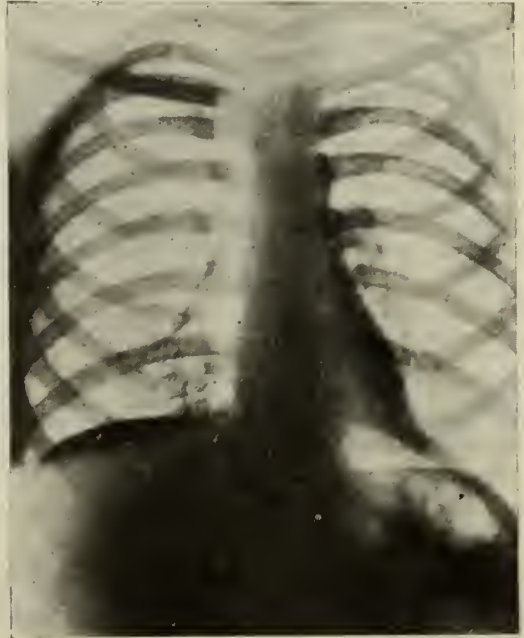
Family history, negative.

Personal history, negative with exception of occasional attacks of tonsilitis and an attack of pneumonia ten years ago.

Present illness: Was apparently well until July, 1917, at which time he was taken with an attack of acute appendicitis, which went rapidly to abscess formation and which was operated by a surgeon of this city. The condition found was described as a generalized peritonitis. Convalescence was very stormy with profuse drainage extending over a period of six to eight weeks. Following this, patient returned home, improved, but apparently did not approach normal. Continued underweight, but was able to resume the practice of law. He continued in this condition, with no acute manifestations until January, 1920, approximately two and one-half years after the first acute illness. This phase of the case is very interesting for the fact that so far as we are able to find, there has been no case reported in which there was an interval of over eighteen months. In this case a period of two and one-half years elapsed between primary suppurative process and first symptoms which were later made attributable to subphrenic abscess. During that time patient was not acutely ill but apparently did not reach a normal physical condition. In July, 1920, patient was again acutely ill with what appeared

to be an acute septic condition, of two weeks' duration, characterized by repeated chills accompanied by sweats. During that time no spe-

No. 3



X-ray of case, showing diaphragm high but no evidence of localized pneumonia. This is unusual.

cific diagnosis was made. Following this acute attack he lost weight very rapidly (approximately 30 pounds in two months) accompanied by occasional febrile attacks of short duration. He continued in this condition until November, when he presented himself for study.

Physical examination showed a well-developed man of good physique, apparently underweight, showing rather classical symptoms of chronic sepsis, characterized by peculiar ashy hue of skin, low grade temperature, with occasional sweats, associated with anorexia, malaise, weakness, insomnia and pain in entire upper right quadrant, which was not severe. There was noted a localized swelling in the right lower thorax, more marked over intercostal space of 9th and 10th rib in posterior axillary line. Area was slightly tender to deep pressure, without fluctuation. Patient was subjected to x-ray and fluoroscopic study, which revealed right diaphragm high in right chest, extending to fourth intercostal space and apparently fixed. There was no increase of liver density downward and there were no gas shadows. Right lower chest, apparently clear, failing to show a localized pneumonia, which some authorities claim is always associated with inflammatory condition of the subphrenic space. (Demonstrated by accompanying x-ray picture of chest.) Laboratory investigation revealed a blood picture characteristic of a secondary anemia, with a mild grade leukocytosis. Blood was examined repeatedly and the leukocyte count ranged between nine and eleven thousand.

Feeling that we were dealing with either a hepatic, subphrenic or perinephritic abscess, an effort was made to make diagnosis by elimination. Patient was subjected to careful urological examination, which consisted of a cystoscopic



examination with catheterization of the right ureter, followed by kidney function test. Examinations proved insignificant. This was also supported by x-ray of the urinary tract, which showed the right kidney in position and of normal size. These findings, associated with the fluoroscopic findings, justified us in making a diagnosis of subphrenic abscess.

With local anaesthesia patient was subjected to operation, using the transpleural route, with resection of portion of tenth rib in posterior axillary line, with the idea of doing a two-stage operation. When pleura was exposed it was found that abscess had ruptured through the diaphragm, infiltrating both visceral and parietal pleura, with such perfect walling off of the pleural cavity that a two-stage operation was not thought necessary. Gas-oxygen was added and the pleura incised. This opened into a large subphrenic abscess filled with organized septic material. Drainage consisted of multiple rubber tube drains. Operation was followed by exceptionally smooth convalescence. Wound was healed at end of twenty-one days and patient returned home. Subsequent reports at various intervals since state that patient has gained in weight and is well.

20 Ponce de Leon Avenue.

### ABSTRACT SERVICE.

American Social Hygiene Association

**Stricture of the Urethra in Women.** By William E. Stevens. California State Journal of Medicine. February, 1922.

Stricture of the urethra in women is a condition which is very often overlooked, although it may be responsible for marked functional and organic disorders in the genito-urinary tract of this sex. Herman, of London, following the examination of 55 women without urinary symptoms, concluded that the normal size of the female urethra is F 29, a little less than 10 millimeters. Van de Warker expressed the opinion that a urethra from F 23 to F 28 should be considered normal. Examination of 114 patients at the Stanford Women's Clinic disclosed the fact that only 18 or about 16 per cent had never suffered from symptoms referable to the urinary tract. Following urethral calibration in these 18 cases, the author found the average size of their urethra to be F 26 or a little less than 9 millimeters. As to symptoms, frequent urination is the most common. It occurs in over 85 per cent of the author's clinic and private cases. Subjective symptomatology was not taken into consideration in the patients confined in the detention ward of the San Francisco

Hospital, as many of these deny disability, hoping to be released as soon as possible. Next to this symptom, pain referred to the urethral or bladder regions is the most prominent symptom. This symptom occurs in 64 per cent of the cases. Burning or smarting are present in 26 per cent, urgency in 5 per cent, and difficulty, constant desire to urinate, partial incontinence, dribbling and retention of urine, were each present in two and a half per cent of the patients. Residual urine is seldom found except in the presence of very tight strictures. The diagnosis is best made by means of the olive-tipped bougie, urethratome or sound is much less reliable, as strictures usually wield to slight pressure, and consequently higher readings result from use of the latter instruments. The majority of urethral strictures should be treated by means of gradual dilatation, absorption of the constricting exudate being best promoted by this procedure.

Dr. Stevens' conclusions are as follows:

Stricture of the female urethra is relatively common, and consequently calibration of this organ should be part of the urological examination of every woman and child complaining of symptoms referable to the genito-urinary tract.

Strictures of the female urethra respond readily to proper treatment, and their early detection will prevent pathological lesions of the upper urinary tract secondary to this condition.

**Circumcision Prevents Syphilis.** By Alexander Irvine, M. D., Virginia Medical Monthly, Vol. 48, No. 4, July, 1921.

Syphilis stands next to tuberculosis as a cause of death. National circumcision would prevent forty thousand deaths each year in the United States, according to the author. Circumcision, through the removal of the foreskin, prevents infections through an abrasion which usually occurs on the foreskin. Upon circumcision, the parts become tough like the skin, and are seldom abraded. The practice of circum-

cision explains the comparative infrequency of syphilis among the Jews.

Dr. Irvine feels that there would be no need for mercury iodide and salvarsan if the practice of circumcision would become nation-wide.

Replying to the above statements, Dr. M. A. Zoeckler, Daulatabad, Malayir, Persia, testifies in a letter to the Journal of the American Medical Association that circumcision is not a factor in the prevention of syphilitic infection, since in Persia where it is practiced among the Jews and Mohammedans, syphilis is "frightfully common." The impression derived from ten years of practice of medicine in Persia leads him to believe that syphilis is steadily and rapidly increasing.

#### BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

**American Illustrated Medical Dictionary (Dorland).** A new and complete Dictionary of terms used in medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology and kindred branches with new and elaborate tables. Eleventh Edition, Revised and Enlarged. Edited by W. A. Newman Dorland, M. D. Large octavo of 1229 pages with 338 illustrations, 141 in colors. Containing over 1,500 new terms. Philadelphia and London; W. B. Saunders Company, 1921. Flexible Leather, \$7.00 net; thumb index, \$8.00 net.

**Neoplastic Diseases.** A treatise on Tumors. By James Ewing, M. D., Sc.D., Professor of Pathology at Cornell University Medical College, New York City, Second

Edition, Revised and Enlarged. Octavo of 1054 pages with 514 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth \$12.00 net.

**Diseases of the Skin and Eruptive Fevers.** By Jay Frank Schamberg, M. D., Professor of Dermatology and Syphilis, Graduate School of Medicine, University of Pennsylvania. Fourth Edition, thoroughly revised. Octavo of 626 pages, 265 illustrations. Philadelphia and London. W. B. Saunders Company, 1921. Cloth, \$5.00 net.

**A Text-Book of Physiology: For Medical Students and Physicians.** By William H. Howell, Ph.D., M. D., Professor of Physiology, Johns Hopkins University, Baltimore. Eight Edition, thoroughly revised. Octavo of 1053 pages, 308 illustrations. Philadelphia and London. W. B. Saunders Company, 1921. Cloth, \$6.50.

**Clinical Electrocardiography.** By Frederick A. Willius, M. D. Section on Clinical Electrocardiography, the Mayo Clinic, Rochester, Minnesota and the Mayo Foundation, University of Minnesota. Octavo of 188 pages with 185 illustrations. Philadelphia and London. W. B. Saunders Company, 1922. Cloth, \$5.00 net.

**Psychoanalysis: Its Theories and Practical Application.** By A. A. Brill, Ph.B., M. D. Lecturer on Psychoanalysis and Abnormal Psychology, New York University. Third Edition, thoroughly revised. Octavo of 468 pages. Philadelphia and London. W. B. Saunders Company, 1922. Cloth, \$5.00 net.

**A Text-Book of General Bacteriology.** By Edwin O. Jordan, Ph.D. Professor of Bacteriology in the University of Chicago and in the Rush Medical College. Seventh Edition, thoroughly illustrated. Philadelphia and London. W. B. Saunders, 1921. Cloth, \$5.00 net.



**THE JOURNAL**

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

Office of Publication: 822 Healey Bldg., Atlanta, Ga.

MAY, 1922

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****GEORGIA ADMITTED TO REGISTRATION AREA FOR DEATHS.**

Physicians in Georgia should be highly gratified that this State has been admitted to the registration area for deaths. At the Rome meeting last year the Association passed a resolution demanding complete and accurate death records for Georgia. At the request of the Bureau of Vital Statistics a Special Agent of the Census Bureau was sent to Georgia to make a full and complete investigation of the Georgia Bureau. As a result of this investigation we were admitted to the registration area for deaths. This is due not only to the most excellent work of Doctor W. A. Davis, Director of the Bureau of Vital Statistics of the State Board of Health, but also to the

excellent co-operation of the physicians throughout the state in sending in complete records of deaths amongst their patients.

The Vital Statistics Law of Georgia was passed in 1914 and became effective in August of that year but there were no funds provided for the carrying out of its provisions. The appropriation became available January 1, 1919, at which time actual work was begun by the Board of Health through its Bureau of Vital Statistics. The law in Georgia is the same as the model law with certain alterations to suit local conditions.

There are 69 counties having a population of 1,764,528 and a death rate running from 10 to 22, showing an average rate of 12.78 per thousand for that group. There are 91 counties with a population of 1,134,582, with rates running from 6.7 to 10, showing an average of 8.69 per thousand.

As stated in the report of the Special Agent, Mr. Jermane, the first step for the improvement of registration is the settlement of the matter as to the payment of fees. There are 40 counties, or 25% of the total, that are not paying the fees on account of the lack of funds. Six counties, or 3.75%, have refused to pay the local registrars the fee of fifty cents for each certificate as required by law. In order to test the validity of this section a mandamus suit will be brought by the Attorney-General against Baldwin County as a test suit and will be carried in a friendly trial to the Supreme Court.

The mortality test was begun on February 23 and completed on March 31 and it showed that over 90 per cent of the deaths in Georgia are being registered. The four largest counties, viz., Bibb, Chatham, Fulton and Richmond, with a population of 16% of the State's total, had only five unrecorded deaths charged to them out of 616 reported, or a deficiency of only .81%. These 616 deaths represented 26.34% of those tested for the State.

While we should feel particularly gratified at being admitted to the registration area for deaths after only three years of

active work by our Bureau of Vital Statistics, we must not rest here, but must exert every effort to become admitted to the registration area for births as soon as possible.

## POST-GRADUATE STUDY IN VIENNA.

### Discrimination Against American Physicians.

We are in receipt of a communication from the American Medical Association, of Vienna, Austria, relative to postgraduate work there which we think well worth reproducing, since many American physicians believe that Vienna will again become the Mecca for students from the entire world. That the Old World once held the leadership is unquestioned—that it has lost this leadership for all time to come is, we believe, a safe prediction. When physicians can obtain unparalleled advantages for postgraduate work here and, ignoring these, go to Vienna and get robbed, all we have to say is that they deserve it. The communication is published in full below.

American Medical Association of Vienna,  
Vienna, March 24, 1922.

To American Physicians:

The American Medical Association of Vienna was established 1904.

The objects of the Society are to promote the social intercourse and the scientific advancement of its members, to provide information in regard to the scope and relative value of courses, and to furnish data for the rapid orientation of new members in regard to pensions, rooms, restaurants, etc. (Article II. of the Association's Constitution).

It also regulated, in agreement with the teachers, the different fees charged for post-graduate work, and arranged all the courses taken by American doctors. It worked to the satisfaction of both the American doctors who came to Vienna for postgraduate study as well as for the teachers of the Vienna University. A great many courses were placed under the control of the A. M. A. of Vienna, as far as

their personnel, number of members, and hours were concerned. These were called bookcourses and were given for a fee approved of by the Society. The so-called "Blue Book" comprised all these courses and explained how they were conducted. The Blue Book was issued every year on January 1st, and the members of the A. M. A. of Vienna as well as the teachers abided by its rules. It was not only the quality of the teachers but also the propaganda which the members of the A. M. A. carried on in the States that made Vienna the hospitable home of 300—400 American doctors every year. Things ran smoothly most of the time up to 1914, when the war broke out. During the war, Dr. J. Lange, a former president of the A. M. A. of Vienna, remained in Vienna and had the misfortune of breaking down physically as well as financially. The lecturers in recognition of his services and probably also in expectation of Dr. Lange's sending back 150 American physicians to Vienna, as he promised, made up a purse with which to send him home to Chicago. They also defrayed the expenses of a Blue Book, which he had compiled without any authority whatever from the A. M. A., and in which he printed exorbitant fees for the courses to be given by the various lecturers. This is the Blue Book of 1919.

These preliminary remarks, we find necessary for the full understanding of our present unfortunate difficulties with the Vienna faculty concerning fees charged for courses.

In the summer of 1921 about 12 American physicians came to Vienna to take courses, and first began to complain about the fees they were asked to pay. They were charged all the way from one to ten dollars for one hour.

The discrimination which was going on against American physicians became unbearable, for it was a twofold discrimination. To understand this, you must know that two sorts of courses were being given at the clinics.

1. Courses read in German and accessible to doctors from any part of the world.



For these courses, the lecturers charged the Austrian physicians about one-fifth of what they charged physicians coming from the newly formed republics of dismembered Austria. Such physicians were called (Neu-Auslander) "new" foreigners. Doctors, however, who came from countries like France, Switzerland, Holland, England, etc., were called (Alt-Auslander) "old-time" foreigners, and they were charged ten times as much as the Austrian physicians who happened to take the same course.

Our men, as long as they were not asked to pay more than the so-called "old" foreigners, never refused to pay ten times more than the Austrian doctors. But they did refuse to pay more than the "old" foreigners (Swiss, Dutch, Italian, French, etc.). They could not understand why they should be considered better off financially than the Swiss or Dutch, for instance, because the franc and Dutch gulden increased in value in the same ratio as the dollar.

2. The other possibility open for the American doctors to take courses was for them to club together, but since there were only a few Americans present such courses would seldom comprise of more than two to four members. When the teachers were engaged, the Americans were charged three, four, five or even twelve dollars per hour, regardless of whether the course was given in German or English. That means the teacher got for his working hour, if he happened to work for American doctors, three to twelve dollars, which in Austrian crowns in August, 1921, amounted to 3000—12000 crowns. This same teacher, teaching the very same subject would sell his hour, according to the printed official program for postgraduate work issued by the Vienna Medical Faculty, for 2500 crowns to any other foreigner, and 250 crowns, at the most, to an Austrian. It was, therefore, evident that, no matter whether the American physicians took courses jointly with physicians of other nations or had them arranged for themselves only, they were unjustly discriminated against.

Under such conditions it was but natural

that the former American Medical Association was reorganized, and a president elected who, owing to his Vienna origin, was thought to be capable of adjusting the matter. The president had a committee work with him and after August 28th many joint meetings were held with the representatives of the teaching body of the University. In these meetings, the unjustified and unfair attitude displayed toward the American physicians was thoroughly discussed. The committee brought detailed charges of conspicuous discrimination against American doctors. On November 19th the American physicians offered a maximum fee of three dollars for the teacher's hour, proving absolutely that three dollars was four to ten times more than any other foreigner was asked to pay for the same course by the same teacher. The committee also proved, in a detailed memorandum submitted to the teaching body November 19th, 1921, that three dollars per hour in Vienna was a great deal more than ten dollars paid to the best teacher in postgraduate work in New York. It was proved that the Viennese teacher could buy more for three dollars in Vienna than the American teacher could for ten dollars in New York. It was further shown that if the terms, as proposed by the A. M. A. of Vienna, were accepted by the medical teaching staff, many more American doctors would be induced to come to Vienna for postgraduate work, and would thereby re-establish the highly satisfactory pre-war organization.

After prolonged debate and negotiations the terms were acceptable to all departments with the exception of eye, ear and skin (Clinics Meller, Neumann, Dimmer, Finger, Riehl). Without the co-operation of these clinics, however, a satisfactory organization would be impossible, for 75% of the American doctors are directly concerned with these departments.

Since our many attempts to reconcile the relationship between the doctors and the A. M. A. of Vienna have been unsuccessful in procuring a definite agreement, we feel it our duty to let medical men in

the United States know what sort of discrimination is taking place against American physicians.

We have requested the U. S. A. Legation in Vienna to intercede and endeavor to change this lamentable state of affairs, but we have little hope of any success in this matter.

#### A Few Illustrations of Discrimination.

In the official program of the Viennese Medical Faculty for postgraduate courses to be given October, November and December, 1921:

Docent Elias announces a course for metabolic disorders: Fee 500 crowns per hour of his time (if taken by Austrians); the same course he offered to the A. M. A. for five dollars per hour, or according to the exchange value of the dollar at that time, 40,000 crowns per hour!

Docent Stein announces a course for skin diseases and cosmetics: Fee 400 crowns per hour of his time (if taken by Austrians); the same course he offered the A. M. A. for five dollars per hour—40,000 crowns per hour from Americans!

Docent Denk announces: "Selected Chapters from Special Surgery," for 250 crowns per hour of his time (if taken by Austrians); from the A. M. A. he asks five dollars per hour of his time—40,000 crowns!

In January and February, 1922, when the dollar went up to 9—10,000 crowns in exchange:

Docent Hirsch asked in his course, "Anatomy and Pathology of Nose and Sinuses," from old foreigners, 6,000 crowns for one hour of his teaching time; from Americans, four dollars—36-40,000 crowns.

Prof. Kyrle, in a skin course given in February to two Swiss, one Egyptian and three Americans, asked 30,000 crowns from the Swiss and Egyptian, and 60,000 crowns from the Americans—and they paid it!

Dr. Bernard McHugh Cline announces the removal of his offices from Milledgeville, Ga., to suite 929-30 Candler Building, Atlanta, Ga. Practice limited to eye, ear, nose and throat.

## CONFERENCE OF DISTRICT AND CITY HEALTH OFFICERS.

Venereal Disease Institute Clinic and Alumni  
Week of Emory University, Medical  
Department.

A week's study will begin on the morning of Monday, June 5th, continuing through Friday, June 9th. Every hour of this week will be taken up; something doing every minute from 8 a. m., until you want to go to bed at night. You can get any kind of clinic or lecture you are looking for, and it is all offered the physicians of the south without cost. We predict that a thousand physicians will be in Atlanta during the week. Begin making your arrangements now to come.

A tentative program has been arranged which is subject to change. We will only give you in this article that of the Health Officers' Conference and Institute Clinic. The Alumni week will be given you by Dr. Person, who is at work for one of the greatest weeks ever offered the alumni of any University.

Monday morning, June 5th, at 10 a. m., arrive at Emory University Campus; Registration and Informal Reception.

11 A. M.—Inspection of the New Wesley Memorial Hospital.

12 Noon—Luncheon for the Alumni.

2 P. M.—Lecture—Dr. Stewart R. Roberts—Syphilis vs. Diagnosis.

3 P. M.—Dr. Bachmann—Heart Block With Demonstration.

4 P. M.—Exhibits of Anatomical and Pathological specimens and examination of Laboratories, and possibly open Forum meeting at night.

Tuesday Morning, June 6th—Session at Old College Building and Gray Clinic in the City.

Schedule of Health Officers' Conference and  
V. D. Institute Week.

TUESDAY, JUNE 6TH—8 TO 11 A. M.

1. Organizing a Community to Do Health Work:
  - (a) Urban—J. A. Thrash, M. D., City Health Officer, Macon Ga.; Chas. L. Ridley, M. D., City Health Officer, Macon, Ga.



- (b) Rural—H. E. Felton, M. D., Com. of Health, Cartersville, Ga.; J. H. Hammond, Com. of Health, LaFayette, Ga.
- 2. Induced Immunity as a Means of Control of:
  - (a) Smallpox—J. P. Kennedy, M. D., City Health Officer, Atlanta, Ga.
  - (b) Typhoid Fever—C. S. Kinzer, M. D., Com. of Health, LaFayette, Ga.
  - (c) Rabies—T. F. Sellers, M. Sc., Director of Laboratories, State Board of Health, Atlanta, Ga.
  - (d) Diphtheria—B. D. Blackwelder, M. D., Com. of Health, Gainesville, Ga.
- 3. The Relation of The Local Health Dept. to the Gathering of Statistics.
  - (a) Birth and Mortality—W. A. Davis, M. D., Director, Bureau of Vital Statistics, State Board of Health, Atlanta, Ga.
  - (b) How a County Health Officer Can Co-operate—J. A. Johnston, M. D., Com. of Health, Bainbridge, Ga.
  - (c) Getting Correct Reports of Communicable Diseases—Geo. A. Dame, M. D., Director, Bureau of Communicable Disease, Florida State Board of Health, Jacksonville, Fla.

#### TUESDAY, JUNE 6TH.

- 10 A. M.—Diagnosis Chronic Abdominal Affections—C. W. Strickler, M. D., Atlanta, Ga.
- 11 A. M.—Clinical Pathology—Drs. Funke, Kelly and Schochet, Atlanta, Ga.
- 12 Noon—Basal Metabolism Demonstration—Allen H. Bunce, M. D., Atlanta, Ga.

#### TUESDAY, JUNE 6TH—2 TO 4 P. M.

- 4. Control of Venereal Disease:
  - (a) Syphilis—Col. C. E. Koerper, M. D., City Health Officer, Savannah, Ga.
  - (b) Gonorrhea—Prof W. C. Blasinghame, Director, Bureau of Venereal Disease Control, Alabama State Board of Health, Montgomery, Ala.
  - (c) Law Enforcement—Joe P. Bowdoin, M. D., Director, Division Venereal Disease Control, State Board of Health, Atlanta, Ga.
  - (d) Operating a V. D. Clinic—B. V. Elmore, M. D., Com. of Health, Rome, Ga.

#### TUESDAY, JUNE 6TH.

- 2 To 3 P. M.—Clinics—Syphilis and Gonorrhea.
- 4 To 5 P. M.—Arsphenamine and Neo-Arsphenamine—Dr. C. N. Meyers, New York. Dr. Meyers has been sent to Georgia by the United States Public Health Service.
- 8 P. M.—Public Address: Diet and Nutrition in Relation to Public Health—Dr. Seale Harris, President Southern Medical Association, Birmingham, Ala.

(Place to be announced later.)

- 5. Ideal Results to be Obtained Through the Operation of a Full Time Health Organization: How to Obtain Results In:

#### WEDNESDAY, JUNE 7TH—8 TO 11 A. M.

- (a) The Rural Districts—J. D. Applewhite, M. D., Com. of Health, Athens, Ga.
- (b) In the City—J. R. Scully, D. V. M., City Health Officer, Waycross, Ga.
- An Address—T. F. Abercrombie, M. D., State Com. of Health, Atlanta, Ga.
- 6. Some Educational Measures of Value:
  - (a) The Motion Pictures—O. H. Cheek, M. D., Com. of Health, Dublin, Ga.
  - (b) The Junior Health Organization as a Publicity Agency—R. W. Todd, M. D., Com. of Health, Marietta, Ga.

#### WEDNESDAY, JUNE 7TH.

- 10 A. M.—Myocardiac Insufficiency—Stewart R. Roberts, M. D., Atlanta, Ga.
- 11 A. M.—Clinical Pathology—Drs. Funke, Kelly and Schochet, Atlanta, Ga.
- 12 Noon—Relation of Syphilis to Obstetrics—R. A. Bartholomew, M. D., Atlanta, Ga.

#### WEDNESDAY, JUNE 7TH—2 TO 4 P. M.

- 7. Malaria:
  - (a) A Well Rounded Program for Control—M. A. Fort, M. D., Special Representative of Georgia State Board of Health, Atlanta, Ga.
  - (b) Organizing Quinine Dispensaries—H. L. Akridge, M. D., Com. of Health, Camilla, Ga.
  - (c) Drainage as Usually Undertaken in Small Communities—J. G. Foster, Asst. Sanitary Engineer, U. S. P. H. S.
  - (d) The Stocking of Permanent Pools or Small, Sluggish Streams with *Gambusia Affinis* as a Means of Control—H. N. Old, Asst. Sanitary Engineer, U. S. P. H. S.

#### WEDNESDAY, JUNE 7TH.

- 2 To 3 P. M.—Clinics: Syphilis in Women.
- 4 P. M.—Application of New Remedies in the Treatment and Cure of Venereal Diseases—E. G. Ballenger, M. D., Atlanta, Ga.

#### WEDNESDAY, JUNE 7TH.

- 5 P. M.—Neuro Syphilis—Lewis Gaines, M. D., Atlanta, Ga.

#### THURSDAY, JUNE 8TH—8 TO 11 A. M.

- 8. Sanitation:
  - (a) As Applied to Urban and Suburban Communities—H. C. Woodfall, C. E., Director of Division of Sanitary Engineering and Water Analyses, Georgia State Board of Health, Atlanta, Ga.
  - (b) As Applied to the Handling of Milk—Hugo Robinson, M. D., Com. of Health, Albany, Ga.
  - (c) As Applied to the Unsewered Home or Business House—B. F. Bond, M. D., Com. of Health, Americus, Ga.

- (d) As Applied to Rural Communities—M. F. Haygood, M. D., Director, Division of County Health Work, Georgia State Board of Health, Atlanta, Ga.
- (e) Operation of Scavenger Tank-Wagons in Small Unincorporated Villages—T. E. Lockhart, Health Officer of Fulton County, Atlanta, Ga.

#### THURSDAY, JUNE 8TH.

- 10 A. M.—Meddlesome Obstetrics—J. R. McCord, M. D., Atlanta, Ga.
- 11 A. M.—Diabetes—J. E. Paullin, M. D., Atlanta, Ga.
- 12 Noon—X-Ray Treatment Deep-Seated Malignancies—J. J. Clark, M. D., Atlanta, Ga.

#### THURSDAY, JUNE 8TH.

- 2 to 3 P. M.—Clinics: Gonorrhea in Women.
- 4 P. M.—End Results of Gonorrhea in the Female—Walter Holmes, M. D., Atlanta, Ga.
- 5 P. M.—The State Board of Health Laboratory—T. F. Sellers, M. Sc., Director of Laboratories, State Board of Health, Atlanta, Ga.

#### FRIDAY, JUNE 9TH—8 TO 11 A. M.

##### 9. Some Child Hygiene Activities:

- (a) Organizing of Child Health Projects—Dorothy Bocker, M. D., Director, Division of Child Hygiene, State Board of Health, Atlanta, Ga.

Discussion—Dr. Alice Moses, Asst. Director, Division of Child Hygiene, State Board of Health, Atlanta, Ga.

- (b) Prenatal Health Work—R. A. Bartholomew, M. D., Atlanta, Ga.

Discussion—Miss Virginia Gibbs, R. N., County Health Nurse, Marietta, Ga.

- (c) Nutrition of Infants and Children—W. L. Funkhouser, M. D., Atlanta, Ga.

Discussion—E. D. Allen, Jr., Com. of Health, Milledgeville, Ga.

- (d) Physical Examination of the School Child—L. H. Muse, M. D., Atlanta, Ga.

Discussion—H. L. Pearson, M. D., Com. of Health, Thomasville, Ga.

- (e) Relation of Dentistry to Child Health—Spencer R. Atkinson, D. D. S., Atlanta, Ga.

Discussion—R. L. DeSaussure, M. D., Com. of Health, Brunswick, Ga.

- (f) The Tonsil and Adenoid Clinic—A. G. Fort, M. D., Atlanta, Ga.

Discussion—G. T. Crozier, M. D., Com. of Health, Valdosta, Ga.

#### FRIDAY, JUNE 9TH.

- 10 A. M.—Managements of Chronic Nephritis—H. L. Reynolds, M. D., Atlanta, Ga.
- 11 A. M.—Clinical Endocrinology—Arch Elkin, M. D., Atlanta, Ga.
- 2 To 3 P. M.—Clinic: Syphilis and Gonorrhea.
- 4 P. M.—Syphilis—W. B. Emery, M. D., Atlanta, Ga.

- 5 P. M.—Your State Board of Health—Thos. F. Abercrombie, M. D., State Commissioner of Health, Atlanta, Ga.

### SEVENTH DISTRICT MEDICAL SOCIETY.

The Seventh District Medical Society met at Lafayette, Ga., April 5th, as the guests of the Walker County Medical Society.

Dr. C. F. McLain, of Calhoun, was president and Dr. M. M. McCord, of Rome, secretary. Rev. I. S. Leonard led the invocation.

Col. Shaw delivered the address of welcome in behalf of the City of Lafayette. Dr. W. E. Bryan extended the welcome for the Walker County Medical Society. Dr. Robert H. Wicker, of Rome, delivered the response in his usual graceful style.

The minutes of the last meeting, which was held in Cedartown in December, were read and adopted.

Drs. M. M. McCord and J. H. Hammond each made short talks, urging all the doctors present, who had not done so, to pay up their state and county dues at once, as the State Association was in great need of funds.

Scientific papers were taken up, as follows:

1. Some of the Common Diseases of the Thyroid, John B. Haskins, M. D., Chattanooga. Discussed by Drs. McCall and Holtzclaw.

2. The Radical Cure of Hydrocele Without Surgery. E. H. Richardson, M. D., Cedartown. Discussed by Drs. Routledge, M. N. Wood, Geo. R. West, Holtzclaw and Clements.

3. Dr. T. F. Abercrombie, Secretary State Board of Health, made a short talk, urging the use of toxin-anti-toxin in the prevention of diphtheria.

4. The Reports of Two Cases of Fracture of Skull. Maxwell Harbin, M. D., Rome. Discussed by Drs. Revington, West and Holtzclaw.

5. Some Points in Making Life Insurance Examinations. J. B. Steele, M. D., and R. C. Maddox, M. D., Chattanooga.



Discussed by Drs. McCord, Richardson, Maddox, West and Holtzclaw.

6. Recent Advances in Orthopedic Surgery. J. T. McCall, M. D., Rome.

7. Danger Signals in Pregnancy. R. M. Coulter, M. D., Lafayette. Discussed by Drs. Fincher, Holtzclaw, West and Stemm.

8. Fracture of Hip Joint. J. H. Revington, M. D., Chattanooga. Discussed by Drs. Max Harbin and Holtzclaw.

9. President's annual address.

The next order of business was the election of officers, which resulted as follows:

For President—Dr. J. T. McCall, Rome.

For Vice President—Dr. E. H. Richardson, Cedartown.

For Secretary and Treasurer—Dr. M. M. McCord, Rome.

A resolution was passed thanking the local profession of Walker County and the ladies of Lafayette for the hospitality manifested, especially for the most excellent lunch served by the ladies at the club rooms during the noon hour.

There were over fifty physicians present. Every one had a most delightful time. No one regretted that the meeting was held in Lafayette. It was a delight to meet in the new temple of justice, which was recently completed at Lafayette. Walker County has a court house in keeping with any country court house in the state. It is modern in every respect and made a most delightful place for the doctors to meet.

The next meeting will be held in Rome in September.

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#### **Putnam County Medical Society.**

Putnam County Medical Society reports following officers for 1922:

President—Dr. V. H. Taliaferro, Eatonton, Ga.

Vice-President—Dr. E. F. Griffith, Eatonton, Ga.

Secretary-Treasurer—Dr. S. A. Clark, Eatonton, Ga.

Delegate—Dr. S. A. Clark.

Board of Censors—Drs. E. Y. Walker, V. H. Taliaferro and E. F. Griffith.

#### **Cobb County Medical Society.**

Cobb County Medical Society reports following officers for 1922:

President—Dr. W. E. Benson, Marietta, Ga.

Vice-President—Dr. Will Humphries, Acworth, Ga.

Secretary-Treasurer—Dr. L. L. Blair, Marietta, Ga.

Delegate—Dr. E. M. Bailey, Acworth, Ga.

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#### **Glynn County Medical Society.**

Glynn County Medical Society reports following officers for 1922:

President—Dr. J. A. Dunwoody, Brunswick, Ga.

Vice-President—Dr. R. E. L. Burford, Brunswick, Ga.

Secretary-Treasurer—Dr. J. P. Harrell, Brunswick, Ga.

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#### **Tift County Medical Society.**

Tift County Medical Society reports following officers for 1922:

President—Dr. N. Peterson, Tifton, Ga.

Vice-President—Dr. J. M. Price, Tifton, Ga.

Secretary-Treasurer—Dr. Mack P. Sorman, Tifton, Ga.

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#### **Newton County Medical Society.**

Newton County Medical Society reports following officers for 1922:

Secretary-Treasurer—Dr. W. D. Travis, Covington, Ga.

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#### **Washington County Medical Society.**

Washington County Medical Society reports following officers for 1922:

President—Dr. H. A. Herman, Sandersville, Ga.

Vice-President—Dr. T. B. King, Sandersville, Ga.

Secretary-Treasurer—Dr. N. J. Newsum, Sandersville, Ga.

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#### **Baldwin County Medical Society.**

Baldwin County Medical Society reports following officers for 1922:

President—Dr. B. McH. Cline, Milledgeville, Ga.

Vice-President—Dr. W. H. Allen, Milledgeville, Ga.

Secretary-Treasurer—Dr. H. D. Allen, Jr., Milledgeville, Ga.

Delegates—Drs. T. M. Hall and R. Binion.

Board of Censors—Drs. E. W. Allen, J. I. Garrard and J. A. Lawrence.

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#### **Bulloch County Medical Society.**

Bulloch County Medical Society reports following officers for 1922:

President—Dr. R. L. Cone, Statesboro, Ga.

Vice-President—Dr. J. M. McElveen, Brooklet, Ga.

Secretary-Treasurer—Dr. F. F. Floyd, Statesboro, Ga.

Delegates—Drs. A. J. Mooney and J. M. McElveen.

Board of Censors—Drs. A. Temple, B. A. Deal and J. H. Whiteside.

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#### **Floyd County Medical Society.**

Floyd County Medical Society reports following officers for 1922:

President—Dr. Geo. B. Smith, Rome, Ga.

Vice-President—Dr. J. L. Garrard, Rome, Ga.

Secretary-Treasurer, Dr. M. M. McCord, Rome, Ga.

Delegates—Drs. W. H. Lewis and R. H. Wicker.

Board of Censors—Drs. H. A. Turner, R. D. Russell and W. J. Shaw.

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#### **Burke County Medical Society.**

Burke County Medical Society reports following officers for 1922:

President—Dr. W. C. McCarver, Vidette, Ga.

Vice-President—Dr. W. H. Kelly, Waynesboro, Ga.

Secretary-Treasurer—Dr. H. A. Macaulay, Waynesboro, Ga.

Delegates—Drs. R. L. Miller and H. J. Morton.

#### **Dougherty County Medical Society.**

Dougherty County Medical Society reports following officers for 1922:

President—Dr. R. J. Pearson, Albany, Ga.

Vice-President—Dr. W. S. Cook, Albany, Ga.

Secretary-Treasurer—Dr. Y. C. Lott, Albany, Ga.

Delegates—Drs. W. S. Cook and A. W. Wood.

Board of Censors—Drs. W. L. Davis, T. W. Irwin and A. W. Wood.

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#### **Thomas County Medical Society.**

Thomas County Medical Society reports following officers for 1922:

President—Dr. C. K. Wall, Thomasville, Ga.

Vice-President—Dr. H. M. Moore, Thomasville, Ga.

Secretary-Treasurer—Dr. S. L. Cheshire, Thomasville, Ga.

Delegates—Drs. C. K. Wall and J. L. Summerline.

Board of Censors—Drs. C. H. Ferguson, J. N. Isler and A. D. Little.

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#### **Madison County Medical Society.**

Madison County Medical Society reports following officers for 1922:

President—Dr. L. E. Roper, Comer, Ga.

Secretary-Treasurer—Dr. J. L. Baker, Carlton, Ga.

Delegate—Dr. J. W. Wallace, Commerce, Ga.

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#### **Spalding County Medical Society.**

Spalding County Medical Society reports following officers for 1922:

President—Dr. T. I. Hawkins, Griffin, Ga.

Vice-President—Dr. Webb Conn, Griffin, Ga.

Secretary-Treasurer—Dr. W. S. Howard, Experiment, Ga.

Delegates—Drs. M. F. Carson and A. H. Frye.

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#### **Haralson County Medical Society.**

Haralson County Medical Society reports following officers for 1922:



President—Dr. E. L. Gilmore, Tallapoosa, Ga.

Vice-President—Dr. T. J. Johnson, Tallapoosa, Ga.

Secretary-Treasurer—Dr. L. J. Johns, Tallapoosa, Ga.

Delegates—Drs. W. H. Malone and T. J. Johns.

Board of Censors—Drs. L. J. Johns and W. B. Brock.

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#### **Colquitt County Medical Society.**

Colquitt County Medical Society reports following officers for 1922:

President—Dr. H. T. Edmondson, Moultrie, Ga.

Vice-President—Dr. W. L. Bennett, Moultrie, Ga.

Secretary-Treasurer—Dr. W. W. Massey, Moultrie, Ga.

Delegates—Drs. C. C. Brannen, Everett Daniel, W. W. Massey and J. A. Summerlin.

Board of Censors—Drs. J. A. Summerlin, C. B. Slocumb and E. Daniel.

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#### **Ware County Medical Society.**

Ware County Medical Society reports following officers for 1922:

President—Dr. W. M. Folks, Waycross, Ga.

Vice-President—Dr. D. M. Bradley, Waycross, Ga.

Secretary-Treasurer—Dr. W. D. Mixon, Waycross, Ga.

Delegates—Drs. W. F. Reavis and C. M. Stephens.

Board of Censors—Drs. J. L. Walker, C. M. Stephens and W. M. Lott.

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#### **Franklin County Medical Society.**

Franklin County Medical Society reports following officers for 1922:

President—Dr. W. W. Cornog, Lavonia, Ga.

Vice-President—Dr. E. T. Pool, Carnesville, Ga.

Secretary-Treasurer—Dr. B. T. Smith, Carnesville, Ga.

Delegate—Dr. S. D. Brown.

#### **Polk County Medical Society.**

Polk County Medical Society reports following officers for 1922:

President—Dr. E. H. Richardson, Cedartown, Ga.

Vice-President—Dr. G. M. White, Rockmart, Ga.

Secretary-Treasurer—Dr. P. O. Chaudron, Cedartown, Ga.

Delegates—Drs. E. H. Richardson and J. J. Cooper.

Board of Censors—Drs. J. J. Cooper, W. G. England and J. L. Howell.

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#### **Morgan County Medical Society.**

Morgan County Medical Society reports following officers for 1922:

President—Dr. A. K. Bell, Madison, Ga.

Vice-President—Dr. F. M. Prior, Apalachee, Ga.

Secretary-Treasurer—Dr. J. H. Nicholson, Madison, Ga.

Delegates—Drs. J. H. Troutt and J. H. Nicholson.

Board of Censors—Drs. W. M. Fambrough, J. L. Porter and A. K. Bell.

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#### **Terrell County Medical Society.**

Terrell County Medical Society reports following officers for 1922:

President—Dr. J. G. Dean, Dawson, Ga.

Vice-President—Dr. R. R. Holt, Parrott, Ga.

Secretary-Treasurer—Dr. S. P. Kenyon, Dawson, Ga.

Delegate—Dr. J. T. Arnold.

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#### **Coffee County Medical Society.**

Coffee County Medical Society reports following officers for 1922:

President — Dr. J. R. Smith, Douglas, Ga.

Vice-President—Dr. D. H. Meeks, Nicholls, Ga.

Secretary-Treasurer—Dr. T. H. Clark, Douglas, Ga.

Delegates—Drs. A. S. M. Coleman and T. H. Clark.

Board of Censors—Drs. H. C. Whelchel, W. F. Sibbett and W. L. Hall.

**Richmond County Medical Society.**

Richmond County Medical Society reports following officers for 1922:

President—Dr. Geo. A. Traylor, Augusta, Ga.

Vice-President—Dr. R. V. Lamar, Augusta, Ga.

Secretary-Treasurer—Dr. Jos. Akerman, Augusta, Ga.

Delegates—Drs. S. J. Lewis and T. E. Oertel.

Board of Censors—Drs. S. J. Lewis, C. I. Bryans and T. D. Coleman.

**HEALTH CAMPAIGN, GEORGIA MEDICAL ASSOCIATION.**

The Medical Association of Georgia has decided to inaugurate a state-wide health campaign. A committee on health and public instruction, consisting of three members, has been appointed for this purpose.

Your co-operation in this campaign is desired and we ask you to appoint a committee of three to work with us.

Committees from the Parent-Teachers' Association, the Education Association, the Federation of Women's Clubs and League of Women Voters have been invited to attend the joint meeting.

This joint committee met at the Ralston Hotel in Columbus, Ga., on Thursday afternoon at 2 o'clock, April 20, 1922.

The following subjects were discussed:

1. The Correlation of State Health Work With That of the Laity—Dr. E. C. Thrash, President, Medical Association of Georgia.

2. Need of Recodifying the Georgia Sanitary Laws, Especially as They Pertain to Infants and Children—Dr. T. F. Abercrombie, State Board of Health.

3. Child Hygiene—Dr. Dorothy Bocker.

4. Importance of having well informed Lecturers available to address Public Meetings in the Counties and Communities on Health Subjects—Dr. W. A. Mulherin.

Signed:

WM. A. MULHERIN, Augusta.

F. F. FLOYD, Statesboro.

THEO. TOEPEL, Atlanta, Chmn.

**GREAT GATHERING OF PHYSICIANS IN ATLANTA.**

Many physicians and health officers will attend the alumni week of Emory University, the institute-clinic on venereal diseases and the conference of the district, county and city health officers, opening at Emory University on the morning of June 5 and continuing through the week. The time will be filled with lectures, clinics, demonstrations and practical bedside teaching. It is all free; no expense attached to it at all. The professors at Emory and physicians of Atlanta will give their time; the State Board of Health, Dr. T. F. Abercrombie, will arrange for four days' intensive instruction and discussion of health problems and preventive medicine.

The study of venereal diseases will be at the bedside and at the clinic of Grady Hospital and be in charge of the most competent specialists.

Eminent men from outside the State will be invited.

The success of the Institute-Clinic last year has acted as a stimulus to those in charge, with the result of expansion of subjects handled.

The various departments of public health of the adjoining States have been invited, and it is hoped that they will send large delegations.

The Southeastern Passenger Association has been requested to grant one and a half railroad fare for the occasion, and if we have a large enough attendance we feel sure that it will be granted.

**COMMUNICATIONS.**

Georgia State Board of Health,  
Atlanta.

March 25, 1922.

Dear Doctor:

We very much regret that typhoid fever mortality in 1921 increased 45.5 per cent over the preceding year. The exact figures are: Number of deaths from typhoid fever, 1920, 549. Number of deaths from typhoid fever, 1921, 789, or an actual increase of 240.



We wish to appeal to you and every other physician in Georgia to do all possible to help lower this record during the current year.

We are mailing you a card, which we would like for you to display in your reception room, and if you know of any conspicuous places about your community where you can post a few more, please order them today.

Remember, our laboratory manufactures both the plain typhoid bacterine, containing only a saline suspension of Eberth's bacilli, and the triple bacterine which contains, not only the above named organisms, but also the paratyphoid bacilli, type A and type B.

This, of course, is distributed free to the people of Georgia.

Thanking you in advance for your cooperation and assuring you of our desire to serve you in any way possible, I am,

Yours very truly,

T. F. ABERCROMBIE, M. D.,  
Commissioner of Health and Collaborating  
Epidemiologist, U. S. Public Health  
Service.

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March 20, 1922.

Dr. Allen H. Bunce, Sec.,  
State Medical Association,  
Atlanta, Georgia.

My Dear Doctor Bunce:

I am in receipt of a letter from Mr. W. C. Watson, of Welston, stating that there is an opening for a physician, and I thought possibly that you would know of one who desired a location.

Yours fraternally,

W. A. DAVIS, M. D.

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March 29, 1922.

Editor of the Journal of the Medical Association of Georgia.

Dear Sir:

I am writing to inform you of a recent impostor who ran a collecting agency in Atlanta, and specializing in doctors' and dentists' accounts, thinking that perhaps you might give this publicity and thus prevent

his preying upon the unsuspecting doctors of some other community as he did here.

He operated here under the name of Frank Herndon. His company was known as the "Dependable Reporting System." He has now skipped the town, and is evidently operating in some other community. If any of your correspondents should come in contact with him, we in Atlanta would appreciate very much your letting us know his whereabouts so that we may have him apprehended.

Trusting that you will give this due publicity, I am,

Very truly yours,

W. P. NICOLSON.

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Athens, Ga., April 10, 1922.

The members of the Clarke County Medical Society were guests of the superintendent at a dinner at the Athens General Hospital, Thursday, April 7th. After dinner the regular meeting was held, Dr. H. I. Reynolds reading a paper on "The Toxaemias of Early Pregnancy." The meeting was then opened for a general discussion of subjects pertaining to hospital management.

L. Gerdine,  
Secretary, C. C. M. S.

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### ANNOUNCEMENT OF THE MEDICAL FELLOWSHIPS.

The National Research Council announces the establishment of Fellowships in Medicine created for the purpose of increasing the supply of thoroughly qualified teachers in medicine in both clinical and laboratory subjects and in both curative and preventive aspects. The fellowships are supported by appropriations of the Rockefeller Foundation and the General Education Board amounting in total to One Hundred Thousand (\$100,000) a year for a period of five years. Those receiving awards will be known as Fellows in Medicine of the National Research Council.

To qualify for appointment as a fellow, a candidate must have the degree of Doctor of Medicine or Doctor of Philosophy

from an approved university, or preparation equivalent to that represented by one of these degrees. Only citizens of the United States or Canada will ordinarily be appointed, although the fellowship board is authorized to set aside this provision in exceptional cases. The fellowships will be open to both sexes.

Since the principal purpose of establishing these fellowships is to increase the number of competent teachers in the field of medicine, each incumbent will be required to gain experience in teaching. As creative work is regarded as essential to the best teaching, emphasis will also be placed upon research.

Fellows will be at liberty to choose the institutions or universities in which they will work, as well as the men under whose direction they will carry on their researches, subject to the approval of the fellowship board.

Appointments are to be made for a period of twelve months, beginning at any time in the year, with an allowance of six weeks for vacation. The time may be extended, however, if in the judgment of the board the work which the fellow has done justifies it. The stipends are not definitely fixed in amount but they are intended to enable the individual to live comfortably while carrying on his special work as a fellow.

The fellowships will be administered by a special committee, known as the Medical Fellowship Board of the National Research Council.

Correspondence concerning the fellowships should be addressed to the Division of Medical Sciences, National Research Council, Washington, D. C.

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### ANNOUNCEMENTS.

The Clinic, Macon, Ga., announces its opening for the Diagnosis and Treatment of non-contagious, medical and surgical conditions. The building contains the offices of the group. Private and semi-private rooms, operating pavilion, complete dental x-ray and general laboratories are attached.

Dr. Iverson C. Case, formerly chief of orthopaedics, Veterans' Bureau, Washington, D. C., will resume the practice of orthopaedic surgery, with offices at 605-7-9 Georgia Savings Bank Bldg., Atlanta, Ga.

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Dr. M. G. Campbell announces the removal of his offices from the Candler Building to 354 Ponce De Leon Avenue.

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Dr. John Bonar White announces the removal of his offices from 427 Candler Building to 23 Forrest Avenue, Atlanta, Ga.

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Dr. and Mrs. James M. Cook, of Sardis, Ga., announce the birth of a boy on March 18th. Weight, 8 3-4 pounds.

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Dr. Harry R. Slack, Jr., A. B. Georgia '08, M. D. Johns Hopkins '12, whose engagement to Miss Elizabeth Blanchard Randall, of Baltimore, was recently announced, has been appointed Exchange Professor to the Union Medical College in Peking, China, recently opened by Mr. Rockefeller. Dr. Slack is now associate professor laryngology in the Johns Hopkins and will go to Peking as head of the department of Oto-laryngology. He will sail about August 1st and be gone a year.

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### MEDICAL RECORD.

April 22nd marks the passing of the last of the old independent medical weeklies—the Medical Record. The final issue as a separate publication appeared on that date and announcement was made that the Medical Record had been sold to, and combined with, the New York Medical Journal, which appears semi-monthly.

Throughout the fifty-six years of its service to the profession, the Medical Record has had the same publishers and but two editors. Dr. George F. Shrady guided its course for the first thirty-eight years and was succeeded by his assistant, Dr. Thomas L. Stedman, who has long been dean of American medical editors, and widely esteemed. The famous old firm of William Wood & Company will now devote



its energies entirely to the publication of medical books, in which service it has been engaged for 118 years.

It is interesting to recall that many of the most important discoveries and developments in the progress of medicine were first announced to the American profession by the Medical Record. These include Lister's method of antiseptics; Koch's discovery of the tubercule bacillus and that of tuberculin; the employment of cocaine in eye surgery; the Roentgen rays; the discovery of antitoxin of tetanus and that of diphtheria; Madame Curie's discovery of radium and many others.

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#### THE UNITED STATES VETERANS' BUREAU IS:

1. Paying out over \$1,000,000 in cash every day, including Sunday, directly into the hands of the ex-service man or his dependents;

2. Providing, without cost, hospital care and treatment to 30,000 veterans. This care includes board and lodging and represents an expenditure by the government of \$60,000,000 per annum.

3. Giving vocational training, without cost, to over one hundred thousand disabled ex-service men at an expenditure for tuition and supervision of \$30,000,000 per annum;

4. Mailing out six hundred thousand checks every month, representing \$42,000,000;

5. Conducting an insurance business for over six hundred thousand ex-service men without any cost of administration to them. Insurance in force: three and one-half billions;

6. Conducting over fifty thousand medical examinations every month;

7. Giving outside treatment in cases where hospitalization is not required to twenty thousand ex-service men every month;

8. Receiving one thousand new claims every day, in addition to the million two hundred thousand already on file; employ-

ing four thousand ex-service men and women in carrying out the work;

9. Requiring for 1922 expenditures in behalf of the disabled ex-service man, \$510,000,000.00—more than the entire expenditures of the whole United States in 1897;

10. The United States of America is already doing more for its disabled veterans than any country in the world, despite the fact that their losses were far heavier than ours.

11. Do these facts indicate that the disabled ex-service man is being neglected?

C. R. FORBES,  
Director.

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#### DEATHS.

William E. Adams, Madison, Ga., Atlanta Medical College, Atlanta, Ga., 1891, honorary member Morgan County Medical Society; ill for past three years, died April 11th, age 51, from nephritis and complications.

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#### BOOK REVIEW.

**Diagnosis and Treatment of Brain Injuries With and Without a Fracture of the Skull.** By William Sharpe, M. D., Prof. of Neurologic Surgery, New York Polyclinic Medical School and Hospital. 757 pages. J. B. Lippincott Company, Philadelphia. 1920.

This work of Dr. Sharpe's is of real value from a clinical standpoint. His connection with the Polyclinic Hospital has given him abundant opportunity to come in contact with a large number of head injuries which he has incorporated into book form. His opportunities of following up his cases for months, and in some cases, years, after the injury and operation gives the book an added value. His studies of the changes in the eye-grounds and spinal fluid is most interesting. On the whole this book should prove to be of real value to all surgeons whose work is of such nature that head injuries play a role.

OWENSBY.

# THE JOURNAL

OF THE

## MEDICAL ASSOCIATION OF GEORGIA

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Volume XI

ATLANTA, GA., JUNE, 1922.

No. 6

### ORIGINAL ARTICLES

#### PRESIDENTIAL ADDRESS, MEDICAL ASSOCIATION OF GEORGIA.\*

E. C. Thrash, M. D.,  
Atlanta, Ga.

##### Reviewing Some of the Phases of the Texts on Pneumonias.

Time will not permit of a complete survey of all pneumonias, but only a few of the more important phases. Millions of lives were sacrificed during the recent war and millions in money expended, but it is easily within the bounds of truth to say that the amount of knowledge acquired in medical progress will more than compensate for all these lives and all this money. The stamping out of typhoid fever alone will ultimately overbalance the total of all the lives, money and property that the world war cost. While it might be said that this knowledge could have been obtained regardless of the war, at the same time the instantaneous blotting out of typhoid fever in armies consisting of forty millions soldiers emblazoned this information upon the people to a degree that fifty years of civilian life could not have accomplished. In all previous wars of the world typhoid has been the great Captain of Death, while lead and steel only occupied the position of buck privates. In the late world war this murderous monster became a deserter and the pneumonias stood out as the Field Marshal of Death. The complete control of this latter malady with our present knowledge was impossible, but invaluable information was obtained.

The one great lesson, that acquired immunity must be established by the inhib-

ing, ingesting and inspiring small quantities of pathogenic germs at intervals covering a long period was learned. Men from rural districts were segregated in large numbers with equal numbers from congested centers. The latter had been in contact with germs pathogenic to the respiratory tract during their whole life and they had established immunity against relatively virulent germs and naturally became carriers of such types. When their rural brothers were thrown with them these germs were transferred to susceptible country boys where the former became virulent and mowed the latter down appallingly. This in a nut shell was the foundation for the malignant infections with which our camps were stricken as with a plague.

In reviewing the present status of pneumonia, I am constrained to feel that the whole fabric of its pathology should be torn down and rebuilt. In its classification from a pathological standpoint there should be two great divisions. One an inspiration or respiratory infection, the other haemic in origin reaching the lungs through the blood. In the inspiration class pneumonia is produced primarily by the germs invading the respiratory tract. When we speak of inspiration infections in this connection we do not mean those types where, in operations under anaesthetics, one draws large quantities of pathogenic germs down into the recesses of the lung structure, producing abscesses, as in tonsillectomies, nor anaesthesia pneumonias following general surgical operations. We refer to those where virulent germs follow in the wake of less pathogenic ones. It is strongly probable that no person ever died primarily from an inspiratory infection resulting from the

\* Columbus, Ga., May 3rd, 4th and 5th, 1922.



influenza bacillus, the germs of measles, or mumps. These mildly infectious organisms are simply pilots. They prepare the soil. One receives a mild respiratory infection from influenza bacilli or other germs of a similar degree of virulence and when the ground is fallow the pneumococcus and streptococcus may set up a growth in this fertile soil that has been prepared by organisms that preceded them and produces a pernicious disease that is uncontrollable. These potentially malignant germs are no respecter of persons—they attack the unfortunate host of low resistance resulting in death, the person who has a moderate degree of resistance against them producing a relatively mild pneumonia, and those of high resistance resulting only in a mild inflammatory process usually designated *la grippe*, influenza or bronchitis. From these sources spring all of our broncho-pneumonias. They are of inspiratory origin, the more virulent germs following in the wake of less pathogenic ones. Streptococcus hemolyticus is the dominant follow-up germ, though it is usually accompanied by the pneumococcus and staphylococcus, this combination being the bane of clinicians.

Broncho-pneumonia epidemics are always associated with epidemics of a milder form. A person becomes infected with these latter mildly pathogenic germs; if he has considerable resistance by having come in contact with them previously and acquired immunizing power to put them in abeyance or to rout them promptly, he becomes well and is said only to have had a slight cold or a mild bronchitis. If there is a greater degree of susceptibility and the host is stricken down, is sick and gets well after a short period, he is said to have had influenza or *la grippe*. If his degree of resistance is still lowered so that streptococci and the various types of pneumococci together with staphylococci invade the lungs, the situation is pernicious and broncho-pneumonia is the result. One in the latter instance usually suffers from a septicemia resulting from streptococcus and pneumococcus infections with the

lungs as a focus. In other words in the more virulent pneumonias the germs get into the circulating blood and there is not only a pulmonitis, but a streptococcic bacteremia. Sometimes both the streptococcus and pneumococcus may invade the circulatory system.

In these pernicious forms one often hears the expression, "The patient is developing oedema of the lungs and is simply drowning in his own secretions." This is literally true. I have seen people die twelve hours after an invasion of broncho-pneumonia. This disturbance, however, is not properly speaking oedema. Oedema is a transudate resulting from impairment of circulation in the lungs on account of vascular distention due to weakness of the circulatory system. This latter disturbance is primarily pernicious and is in no wise a reaction of tissues to an exogenous insult. It is a failure of organs to do their normal duty. The drowning of one's self in his own secretions in broncho-pneumonia is primarily beneficent and only ultimately becomes pernicious. The lungs are invaded by highly virulent germs. Nature pours out plasma, white cells, fibrinogenic elements and, incidentally, there is capillary distention and red cells leak through the openings made by the white cells in the efforts of the latter to protect the host against these invading germs. The result is, the air vesicles are filled with potentially protective substances and in the filling up of these vesicles, breathing space is obliterated. This type of exudate may be illustrated by a bee sting. There is no oedema as the term should be used resulting from a bee sting, but an exudate for protective purposes. The bee deposits a concentrated poison into the tissues which would be so destructive as to produce gangrene except that the pouring out of plasma so dilutes the poison that no permanent injury results while sufficient antibodies are being built to precipitate and remove this toxic substance. The one difference is that this latter poison is chemic and not progressive as is the case in bacterial toxicities, so that when the quantity

injected by the bee is diluted and removed the patient is well. One could continue to be inoculated with bee poison and a complete immunity quickly established whereby no exudate would result from its sting, as the antibodies would consume and destroy the poison immediately after it is deposited. The same forces are acting in the invasion of the lung structures by germs except that the germ toxins result from living, growing, progressive, variable agents which make their activities difficult to overcome. If there is an immunity against them they are destroyed by the antibodies immediately after their invasion and no disease results, whereas if there is not an immunity the germs run riot in proportion to the susceptibility of the host, and in an effort to disintegrate and emasculate them, if they are sufficiently resistant and antagonistic, there may be an exudate sufficient to drown the host.

In years past the type of pneumonia above described was the one we least found. We rarely found broncho-pneumonia except in children and old people and when pneumonia was mentioned only lobar was thought of. Even in Tice's recent Practice of Medicine he describes only lobar pneumonia. Segregating great masses of people with varying degrees of susceptibility and immunity in army life no doubt has made these pneumonias dominant. Lobar pneumonia is now second to these forms while, covering a period of twenty years prior to 1918, much the greater part of all pneumonias which I treated were of the former type.

In lobar pneumonias the pneumococcus is the dominant offending organism, so here we must digress in order to discuss this germ. Pneumococci have been arranged in four groups and are classified as 1, 2, 3 and 4. This classification is somewhat misleading just as it is so to divide the colon-typhoid group into colon, paratyphoid and b, typhoid and dysentery bacillus. There is a graduation from the harmless non-pathogenic colon bacillus to the typhoid, at no point of which a line

can be drawn where one could say here is one and there is the other. We divide them into different strains only for convenience. So with the pneumococcic types. Starting with type four which is found prevalent in most people's mouths and respiration tract, there is an ascendancy from avirulent to virulent and we divide this ascending line, as it were, into four parts and number these parts 1, 2, 3, 4. This arbitrary division is based upon the manner in which they are agglutinated by pneumonia sera.

The avirulent organisms in the mouth of a well individual with the proper amount of resistance may become pathogenic in that same individual when his resistance is lowered to a degree that this germ becomes capable of attacking his unresisting tissues. As an illustration, one may be carrying myriads of pneumococci that are producing no ulterior affects. He may work hard in inclement weather, become chilled, thoroughly tired, go home, eat a hearty meal, and in a short time develop a chill and by morning have a complete consolidation of one or both lungs. We might refer to the point where resistance is overcome as the threshold of invasion. This threshold might be compared to the beginning overflow of a dam. If this dam is lowered on account of a lowering of the vital forces, the germs pour over from dead substances to those that are living, and this pouring over itself lowers the threshold just as a small stream of water pouring over a dam begins to tear the dam away rapidly and in a short time the current is a torrent and the dam is completely destroyed. Such is the invasion of pathogenic germs when the threshold of activity or resistance becomes low enough for a sufficient number of them to pass over and invade the living structures.

We are now ready to discuss the haemic phase of pneumonic invasion. It is certainly beyond the comprehension of any pathologist to visualize a completely consolidated lobe of a lung developing in a few hours from bacterial invasion of this lung through the respiratory tract as a causa-



tive factor. Bacteria must have a period of incubation and this period is always a question of days and not hours. It is easy to comprehend how broncho-pneumonia is produced by the germs invading the lungs through the respiratory tract because this occurs only after many days following the initial invasion. One though in lobar pneumonia is usually well until he is stricken with a chill and this is followed immediately by consolidation of the lung. It is not possible for this great number of germs to develop in a circumscribed area in so short a time. This phenomenon can only be explained upon the basis of a haemic infection.

The culturing of blood for many years has caused me to conclude that there are many more haemic infections than we had dreamed of, many of them producing no serious disturbance. I had a talk a few years ago with the late Dr. E. G. Jones in reference to this matter, and he stated that he had sometimes thought the proper technic could grow germs from almost any blood of an infected person. I have been so surprised in getting positive blood cultures in the past that I have been made to think of this statement many a time. When foci of infection are spoken of, many think that the infection is local and the focus simply furnishes a toxin that is distributed through the system and produces such illnesses as rheumatism, corea, endocarditis and other heart lesions. This is erroneous. Bacteria of varying degrees of virulence get into the circulating blood from these foci and produce diseases of varying severity. So-called toxemias developing from foci are not toxemias but bacteremias.

In order to grasp properly the subject matter to follow we must bear in mind that the ordinary pneumococcus under normal conditions is only mildly pathogenic, and, except in those where the resistance is low, non-disease producing and saprophytic. It only becomes pathogenic after the threshold of resistance has been lowered to a degree that will permit it to live in the body fluids. After such a state of af-

fairs exists there may then be variations in pathogenicity from a degree that would only produce the mildest disturbance to one that no means at our command will enable us to save the life of the host. These germs find their way into the circulating blood through the fauces and respiratory tract,—probably in a large measure through the tonsils. Many undiagnosed ephemeral infections are the result of mildly pathogenic pneumococci invading the blood. Often these germs get into the blood, produce violent illness, even so severe as to cause much anxiety, yet there may be no time at which a pneumonic infiltration can be found in the lungs. I have in several instances grown pneumococci from the blood, and made a diagnosis of pneumococaemia without the lungs ever becoming affected to a degree that would cause pneumonia.

Pneumonic consolidation following pneumococaemia is produced in the following way: A number of changes must take place in bacteria before they can be completely disintegrated in the body fluids. Probably the two antibodies acting primarily upon the bacteria are precipitins and agglutinins, their function being to precipitate and clump bacteria. This clumping is beneficent because it puts the germs in condition for digestion, but a pernicious state in the lungs may arise from such phenomena. The first capillary circulation that these clumps reach is in the lungs. If the agglutinin activities are too great as compared to other disintegrating antibodies, the clumps of bacteria lodge in the lungs in great quantities, resulting in an excessive exudate for the purpose of bringing them into dissolution. These clumps lie in the arterioles of the lungs just adjacent to the capillary circulation between the besicles. The outpouring of plasma, white cells, fibrinogenic substances and incidentally red blood cells, soon fill the vesicles, bringing about a complete consolidation of a circumscribed area of the lungs, resulting in lobar pneumonia.

The question naturally arises as to why

the whole of both lungs do not become consolidated. This can be answered to my satisfaction by the fact that the physical and physiological conditions of different parts of the lungs in the same individual are not uniform. This lack of uniformity is due to the structure of the lungs being different in different areas, to gravity, postural status and previous pathological disturbances which may have produced deviations from the normal. When these clumps lodge in the vesicular arterioles one of two things takes place—they are completely removed by disintegration and digestion leaving the lungs in this area more or less mildly infected, or the vesicles are overwhelmed and water-logged by exudates and pneumonia is the result.

Exhaustive investigation as to etiology, symptomatology and pathology of diseases should be only a means to an end, and that end is to alleviate and cure the sufferer. If there could be a balance sheet showing all pneumonias which have been treated in the past, with the number that has been cured by treatment on the one side, and those in which nature had been handicapped by the treatment in her effort to establish immunity and cure on the other, this deadly parallel would at least be embarrassing to the devotees of Esculapius.

In an effort to actually cure pneumonia there is at present only one remedy, and that the administration of specific serum. All other means are for the purpose of sustaining and comforting the patient until immunity can be established. A perfect specific in the form of serum for pneumonia has not yet been made, but pneumococcic serum administered early in type one pneumonia is spectacular—improvement being immediate and a few doses places the patient in condition so that he is soon well. The other forms sometimes improve conditions but in many instances little result is noted. The typing of pneumonia before the administration of serum is not absolutely necessary though it has some value. After several years' experience I have come to the conclusion that it is safe to give one or two doses of serum

early in pneumonia and if there is no improvement then it may be discontinued. If improvement is noted three to five doses may be given. In types two and three there is often enough improvement to make the administration worth while whereas in type one the cure is prompt. I have had good results from polyvalent pneumo-streptococcic serum combined and this is of special value given early in broncho-pneumonia. I give the polyvalent serum in all instances because I have found that the result is as good as type one in type one pneumonias, and where the type is two or three, or a combination of one, two and three, the polyvalent gives much better results.

It is still a debated question as to whether serum should be given at all in pneumonia because it is argued that those to whom serum is administered would probably get well without it. In other words, the types which are benefitted by serum are of the milder forms, whereas the severer ones are chiefly of streptococcic origin and the serums are of little avail. I have come to this conclusion, however, in the administration of serums in pneumonias. Just as in the administration of antitoxin for diphtheria it should be given at the very earliest time that the disease is diagnosed. Every hour of delay lessens their avail and I have seen but little good result from them after the third or fourth day. Beneficial results are lessened with each hour of the disease. Those who condemn serums are the ones who give them late, and if they will give diphtheria antitoxin the same way they will condemn it just as consistently.

In dismissing this therapeutic agent I wish to state emphatically that it should occupy a conspicuous place in our armamentarium in the treatment of pneumonia and it should be thought of immediately after a diagnosis made, and a conclusion should at once be arrived at as to whether or not it is to be administered. My work being largely consultation, places me where I give much less serum than I would give if I could see the cases primarily.



Treatment for sustaining and comforting the patient should be administered most carefully, thoughtfully, and as sparingly as is possible for the welfare of the patient. When there is no distress, pulse good and heart functioning well no treatment should be administered except for comfort, and aside from laxatives morphine is the drug **par excellence** to be thought of when the patient is in distress. In the way of sustaining the patient there are two things that must be borne constantly in mind. One is to take the strain off the heart or to relieve it or its load. The other is to put it in shape so that it can better carry its load. In other words, lighten the load and strengthen the carrier. We should first think of what we wish to accomplish, and then of the very best means to this end. Early in distressful extensive pneumonia pending death may be averted by bleeding. Where the situation is not so distressing the same results may be accomplished by veratrum. This latter remedy bleeds the patient into his own veins, and given properly at the proper time is quite efficacious. Nature often accomplishes this same purpose by the right heart slightly dilating and regurgitating the blood into the mesenteric circulation. The poorly constructed tricuspid valve and the thin easily dilatable right side of the heart is a safety valve that often saves lives in crises by allowing the blood to back flow into the portal circulation. The mesenteric vessels will hold all the blood in the body, and this reservoir in instances of this kind taking care of excessive blood is beneficent, whereas in surgical shock such anatomical arrangement is pernicious. The load in pneumonia is chiefly upon the right side of the heart for the three following reasons—the resistance is greatly increased in the lungs on account of consolidation, the walls of the right heart are exceedingly thin, and toxicity weakens their structure.

A problematic question in the treatment of pneumonia is when and how to attempt to sustain the carrier of the load. For this I consider that there are four

dependable remedies. They are digitalis, camphor, pituitrin and adrenalin. The heart should not be disturbed as long as it is functioning well. One of the most difficult problems in the practice of medicine is to know when the heart needs help in pneumonia. There are three signals which are dependable. Intensity of the second pulmonic sound, the volume and rapidity of the pulse, the blood pressure. As long as the right side of the heart is functioning properly there is a clear-cut snapping sound of the second pulmonic. The accentuated pulmonic sound is due to tension in the lungs. If the right heart weakens from either tensility or toxicity this sound becomes less intense and is a signal that the heart is failing. Collapsible, feeble pulse and low blood tension indicates an enfeebling of the whole circulatory system. These symptoms should be detected early and the administration of digitalis should be instituted at once. It should be administered in full doses for something like twenty-four to thirty-six hours, after which it should be discontinued. The patient will certainly be killed with digitalis if it is kept up from day to day. The physiological effect should be obtained and then the treatment discontinued for twenty-four to thirty-six hours.

Camphor can be given in full doses continuously because its effect passes off in a few hours and it is difficult to give enough to be harmful. From ten to twenty minims of camphor in oil can be administered every two hours hypodermatically with safety.

We too frequently overlook the important fact that the glands of internal secretion are toxic and cease to functionate properly. The tongue becomes dry because the salivary glands have been so poisoned that they fail to secrete saliva. Just so the pituitary, adrenals, thyroid and other glands of internal secretion fail equally to do their duty. When the heart begins to show evidence of weakness pituitrin should be given from two to three times a day. It is not well to push this

drug too much. One should make an effort to supply about the amount the normal gland secretes. This should be regulated by the blood pressure. If one begins administering it with a pressure of 80 or 90 and after two or three days treatment the pressure rises to 110, the treatment might be discontinued until the pressure again recedes. Small doses of adrenalin given frequently is of great value.

I have made an effort to get adrenalin suspended in oil just as salicylate of mercury is suspended. Parke-Davis & Company are experimenting with this now. They are afraid to put it out until they know definitely that it will not have a bad effect locally upon the tissues. If it is prepared in this way a dose of adrenalin could be administered and absorbed slowly so that its effect will continue through three or four hours instead of scarcely more than that many minutes. Until this can be accomplished we should not depend too greatly upon adrenalin because it is explosive in its action and for that reason its efficacy is less efficient.

In closing I will state that a close watch upon the heart with accumen to see the breakers and sufficient knowledge and judgment to steer clear of them is a prerequisite in the treatment of pneumonia and an attribute that will enable one to cure cases instead of signing death certificates.

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**ADDRESS TO THE EIGHTEEN LIVING  
EX-PRESIDENTS OF THE MEDICAL  
ASSOCIATION OF GEORGIA IN PRE-  
SENTING GOLD BUTTONS TO THEM  
AT THE SEVENTY-THIRD ANNUAL  
CONVENTION.\***

By Frank K. Boland, M. D.  
Atlanta, Georgia

Mr. Toastmaster and Gentlemen: The history of medicine in the State of Georgia is no less glorious than the history of war and letters and statesmanship. It is given to but few physicians, no matter how noble their services to the sick, nor how valuable their contributions to medical sci-

ence, to attain to world-wide renown. By skillful publicity methods some may gain a wide reputation they do not deserve, but we are thankful that few such men have lived in Georgia.

The fame of the scintillating Alexander H. Stephens, the fascinating Robert Toombs, the brainy Benjamin Hill, the gallant John B. Gordon, the sweet-voiced Sidney Lanier, the eloquent Henry Grady, and the irresistible Joel Chandler Harris is national and international, but how many outside of a handful of doctors in our state know that Dr. Milton Antony, of Augusta, was the first to excise a lobe of the lung, which he did in 1821? The patient whose life he saved must have considered Dr. Antony the greatest man in the world, but very few others have ever known of Dr. Antony's wonderful operation. He was also the founder of the first medical school in Georgia, the Medical College of Georgia, in Augusta, in 1830, and published the first medical periodical in the state, the Southern Medical and Surgical Journal, in 1836.

Other members of our profession in this commonwealth have done things in medicine which should entitle them to immortality, but which have given them but little celebrity. Robert Battey, of Rome, is a name fairly familiar to American physicians for the first ovariectomy performed for dermoid cyst, in 1867, and last year we did for him what we should do for more of the distinguished members of this association, unveiled a monument to his memory.

By unabating efforts we are gradually convincing the world of the priority of Crawford W. Long's discovery. Did Alexander the Great or Caesar or Napoleon bestow any boon upon mankind the equal of Long's gift? Millions have been spent on magnificent memorials in marble and bronze to commemorate the deeds of kings and emperors whose ambitions have destroyed whole nations, and we are unable to raise a paltry \$10,000 to perpetuate the name of him who has been the savior of millions of men and women and little chil-

\* Columbus, Ga., May 4, 1922.



dren—Crawford W. Long, the discoverer of anaesthesia.

How many of us know that Dr. W. C. Daniell, of Savannah, was the originator of the application of the weight and pulley in the treatment of fractures of the thigh, in 1819, many years before Gurdon Buck made use of the same principle in the New York Hospital?

How many know that Dr. Richard Banks, of Gainesville, for whom Banks County is named, was the first American surgeon to extirpate the parotid gland, in 1831? It is said of him that he was modest to a fault, and his best work is not on record. Modesty is a becoming virtue, especially in a man of medicine, but we must not let others steal our laurels. If our shrinking members will not tell of their accomplishments, we must record and publish them. It should be Daniell's extension instead of Buck's.

We never had a more worthy representative than Dr. Louis A. Dugas, of Augusta. He was the first to call attention to a most valuable diagnostic symptom in shoulder-joint dislocation, a sign to which posterity has allowed his name to be attached (1857). Also he was the first to advise opening the abdomen at once to locate and suture wounds of the intestine, in 1876, antedating Marion Sims by several years.

To Dr. Henry F. Campbell, of Augusta, belongs the credit of first advocating and practicing ligation of a main artery going to a part in the treatment of inflammatory processes and threatened gangrene. In 1850 he showed the connection between the cerebro-spinal and sympathetic nervous systems. Two years later the same discovery was described independently by the celebrated Claude Bernard in Paris. Upon learning of Dr. Campbell's previous announcement, Bernard promptly withdrew his claim to priority. Dr. Campbell also originated the knee-chest position used in gynecology, and was the first Georgian to be elected president of the American Medical Association.

Dr. J. B. Bean, of Macon, divided with

Dr. Gunning, of New York, the honor of inventing and introducing the interdental splint of vulcanized rubber in the treatment of fractures of the lower jaw (1866).

Time forbids the mention of other Georgia doctors, mostly members of this organization, who have added to our knowledge, or who have achieved notable successes in healing the sick. These are sufficient examples to show that this state has produced many physicians and surgeons whose work should give them undying fame.

But why wait until they are no more before we honor our heroes? We have decided not to do it. Few doctors in Georgia have meant more to our advancement than those who have been the presidents of this association, from Dr. Lewis D. Ford, of Augusta, the first president, in 1849, to Dr. E. C. Thrash, of Atlanta, who graces the position tonight. In order they have been, since Dr. Ford, J. F. Alexander, R. D. Arnold, C. B. Nottingham, Charles Wells, R. Q. Dickinson, H. F. Campbell, W. W. Charters, A. Means, L. A. Dugas, P. M. Kollock, F. S. Colléy, J. P. Logan, J. T. Banks, Robert Battey, DeSaussure Ford, G. W. Holmes, J. G. Thomas, R. J. Nunn, William O'Daniel, S. W. Burney, J. T. Johnson, J. A. Eve, J. C. LeHardy. The exact dates of offices down to LeHardy are uncertain, but in 1881-2, Dr. William F. Holt was president then in 1882-3, K. P. Moore; 1883-4, A. W. Calhoun; 1884-5, Eugene Foster; 1886-7, T. O. Powell; 1887-8, A. G. Whitehear; 1888-9, J. S. Todd; 1889-90, J. B. S. Holmes; 1890-1, A. W. Griggs; 1891-2, G. W. Mullican.

From this year, 1892, until the present time, a span of three decades, eighteen of our ex-presidents still survive, and these we propose to especially honor tonight. Of those who have held the office since 1892, twelve have passed away, two during the past year, Dr. F. W. McRae and Dr. E. G. Jones. Our sorrow in checking these twelve names off the list of the living can be compensated only in our belief that such men, many of whom we knew so well, have gone to a glorious reward. We ask

for their benediction upon this occasion. The twelve are: 1893, W. H. Elliott; 1895-6, F. M. Ridley; 1897-8, J. B. Morgan; 1898-9, H. J. Williams; 1899-1900, F. W. McRae; 1900-1, S. C. Benedict; 1902-3, Charles Hicks; 1903-4, H. McHatton; 1911-12, W. L. Fitts; 1912-13, W. W. Pilcher; 1914-15, W. B. Hardeman; 1919-20, E. G. Jones. Altogether, we have had 64 presidents, eighteen of whom are alive.

The gift of the association tonight to the eighteen living ex-presidents who have served it so faithfully is a gold button, the "Badge of Service," which challenges the right and preference for position of any button that any member can wear upon the lapel of his coat. The button bears the seal of the association, and has on the back the recipient's initials and date of office. The first to receive the distinction, our president in 1892-3, is one of the dearest members of our society, a real doctor. We pray that his model has not been lost, and that this and future generations will produce many more like him—Dr. A. A. Smith, of Hawkinsville.

The second, who presided in 1894-5, is a man who has always been a power in the councils of the organization, a tireless student of medicine, a surgeon of unsurpassed ability, a teacher of the highest rank—Dr. W. F. Westmoreland.

Next, president in 1896-7, is one who has added more to the progress of gynecological surgery in this state than any man in his generation—Dr. Geo. H. Noble.

During the administration of the next living president, Dr. James B. Baird, who served in 1901-2, the association was incorporated, in Fulton County, for a period of twenty years. This charter therefore expires the present year. Our roster does not contain a finer type of physician than Dr. Baird, and we delight to honor him.

An historical event occurred when Dr. William Perrin Nicolson presided in 1904-5, and we are under obligations to him for his success in bringing it to pass. This was the adoption by the Association of the present system of government of the American Medical Association. Dr.

Nicolson is the youngest member on the roll to have practiced as long as he has. His pioneer contributions to surgery in Georgia merit our praise. He was the first to use catgut here; he added to our knowledge concerning ligation of the carotid arteries; he first advocated moist dressings and the use of celluloid skull plates.

His successor in 1905-6 was Dr. W. Z. Holliday, and we were deprived of one of our leading doctors, a man of progressive ideas and sterling character, when he was compelled to retire on account of his poor health. Dr. Holliday, and those immediately preceding and following him, served the Association during stormy and bitter times, which we trust will never be the fortune of future presidents.

The year 1906-7 gave us one of our best presiding officers, Dr. H. H. Martin, who has worthily borne the banner of Georgia in the Southern Medical Association as its first president, and since then as Chairman of Council. An era of great prosperity was enjoyed during Dr. Martin's leadership. He was especially active in the organization of new county societies. At the end of his term, the Association had the largest membership in its history up to that time.

We have never had a more loyal and earnest member, nor a more conscientious and energetic president than Dr. M. A. Clark, who served in 1907-8. Lively scenes marked his tenure of office, and his well-known power as a parliamentarian and his knowledge of our constitution and by-laws was called into constant play.

In 1908-9, Dr. Thomas D. Coleman was president, a man who has stood at the top of his profession in a city famous for famous physicians.

When Dr. T. J. McArthur was elected to the office in 1909, he was the first member of the Association not a resident of one of Georgia's five largest cities to be chosen president in twenty-five years. Since this time it has been the unwritten rule to take our chief executive from outside of one of these cities every alternate year—a wise custom which has meant a great deal for



the peace and prosperity of the organization. The Convention of 1910, in Athens, over which Dr. McArthur presided, was made memorable by the unveiling of the monument to Crawford Long at Jefferson. This was a splendid tribute to our great physician, and must be followed soon by similar appropriate exercises in the national capitol at Washington.

We next come to one who has been honored as few, if any other, physicians have been. Last year he was unanimously elected by his county society as an honorary member and emeritus president for life. This on account of his brilliant, spotless and unselfish record in peace and in war, in conspicuous success as a surgeon and teacher, his charming personality, and because we love him—Dr. E. C. Davis. Dr. Davis' administration in 1910-11 was marked by active work toward perfecting the new Board of Medical Examiners, a strenuous campaign against fee-splitting, and material progress in raising the standard of medical education in the state.

These important plans were consummated during the term of our next living president, Dr. Ralston Lattimore, 1913-14, in the passage of the present Medical Practice Act. Unremitting toil was required of the president and other live members to secure this happy result. He made eighteen trips from Savannah to various sections of the state to help create enthusiasm and bring before doctors and legislators the necessity for this radical change. The vital statistics act was passed the following year, 1914, when Dr. Lattimore was chairman of the committee on public policy and legislation.

No member has a warmer place in our hearts than the next living ex-president, Dr. W. S. Goldsmith, who held the position in 1915-16. Skillful surgeon, splendid teacher, he has always had the welfare of the association foremost, and he gave us a successful administration.

The same may be truthfully said of the next incumbent, Dr. J. G. Dean, who served in 1916-17, an admirable specimen of practitioner, loved by us all.

Then came Dr. Eugene E. Murphy, in 1917-18, a trying time, the first year of America in the Great War, when he set a patriotic example in donning the khaki. By his eloquence alone Dr. Murphey could guide us to high achievements.

No president attended his office more zealously than did Dr. J. W. Palmer, in 1918-19, another turbulent period, when we were still in the war. His presidential address, delivered at Fort McPherson, was a model of clearness and completeness. During his time the Medical Practice Act was considerably improved, and much other important legislation affecting the profession was enacted.

The commendable records of our two last presidents, Dr. E. T. Coleman, in 1920-21, and Dr. E. C. Thrash, in 1921-22, are so recent in our minds that it is superfluous to mention them in detail. This is work for a future historian to perform. But we appreciate the conscientious and able services of these able gentlemen, and are glad to bestow this honor upon them tonight.

The distinctions to be conferred on our ex-presidents should not be considered as entirely personal, but should be thought of as including the whole administration in each—not alone the president, but the secretary, such as Louis Jones, Claude Smith, W. C. Lyle or Allen Bunce, and all the other officers and committeemen who served the chief. No executive can accomplish great things without the hearty co-operation of those associated with him, and for that matter without the enthusiastic and loyal support of the entire membership.

An important innovation was introduced in the Fulton County Medical Society last year. All business of the society was delegated to a board of trustees, composed of the five latest ex-presidents. Thus we put our ex-presidents to work. It would not be practical to give the ex-presidents of the Medical Association of Georgia official work to do, but I believe a mission awaits them, if I may be pardoned for suggesting it.

Gentlemen, because you are ex-presi-

dents you must not cease to attend our meetings. Keep in touch with us. We need you for the benefit of your experience both in scientific and in organized medicine. But it seems to me there is one special function which you are peculiarly fitted to perform. You have passed the time of life when you could be actuated by selfish or jealous motives. You have received the highest honor in the gift of this association. We regret we can not do more for you. But you can do something for us.

In your capacity of the Fathers of the Association, use your influence to promote harmony among us, to cast out jealousy and selfishness. I do not mean by this healthful, keen rivalry. This we need as much as other professions and trades. But there are unreasonable and unfair feelings between many members which hinder our progress, both individually and collectively. Such should not be so, but I regret to say that it is. It seems that when a member gets an unfavorable impression of another member, nothing under God's heaven can change his mind. Sometimes we are too ready to form a bad opinion of our brother, sometimes we are too ready to take affront. A little contemplation might show that our brother's fault is due to youth, or to inexperience, or to indigestion, either on his part or our own. He may be all right if we will give him time; he may be a better fellow than we think he is, or he may know more medicine than we give him credit for, and he may know more than we do. The trouble is that once a bad impression is created, we let it remain, and we are never willing to give the object of our dislike another chance. He may have been all you thought he was a year or five years ago, but he is all right today. Try him out and see.

Wouldn't it be a fine thing for our ex-presidents, these Fathers of the Association, to hunt out cases like some I have in mind, and see if they can not bring about reconciliation and good fellowship. The ex-presidents are the ones to do it. Let

the Medical Association of Georgia show the laity that doctors do not need to be such jealous, envious fellows after all.

Gentlemen, it is with much pleasure that we present these buttons to you tonight. Accept them and wear them with a feeling of pardonable pride that you have served us well. We are grateful for your efforts on our behalf, we love you, and wish for each and all of you long life, prosperity and happiness.

The ex-presidents to receive the buttons are: A. A. Smith, W. F. Westmoreland, Geo. H. Noble, Jas. B. Baird, W. P. Nicolson, W. Z. Holliday, H. H. Martin, M. A. Clark, T. D. Coleman, T. J. McArthur, E. C. Davis, Ralston Lattimore, W. S. Goldsmith, J. G. Dean, E. E. Murphy, J. W. Palmer, E. T. Coleman, E. C. Thrash.

Many of the historical facts are taken from an article in the Transactions of the Association, 1895. "The History of Medicine and Surgery in Georgia," by Dr. Luther B. Grandy.

### ECTOPIC KIDNEY.

Wm. W. Anderson, M. D.  
Atlanta, Ga.

Misplaced kidneys have been recognized for centuries at post-mortem examinations. Naumann (1) in 1897 reported 21 cases occurring in 10,177 autopsies, while Gerard (2) estimated its occurrence as 1 in 2,500. In a recent case report, Bunce's (3) sketch gives an excellent idea of the relations of the great vessels to such a kidney. At the Mayo clinic, Judd and Harrington (4) have collected 19 clinical cases of ectopic kidney, 9 of which were operated upon for some pathological condition—hydro-nephrosis, pyonephrosis, tuberculo-sis, calculi, etc. In the remaining 10 cases the pelvic kidney in each instance was apparently functioning normally and was discovered either during the course of some other operation or in making a routine examination of the kidneys. Bugbee and Losee (5) are of the opinion that a malformed or misplaced kidney, having poor drainage, poor blood supply and subject to pressure is particularly prone to infection. In a series of 23 clinical cases of congeni-



tal anomalies of the kidney studied by them, 6 were in an anomalous position, and showed renal infection. They feel that such kidneys should be freed and placed in a more nearly normal position to improve drainage and relieve pressure.

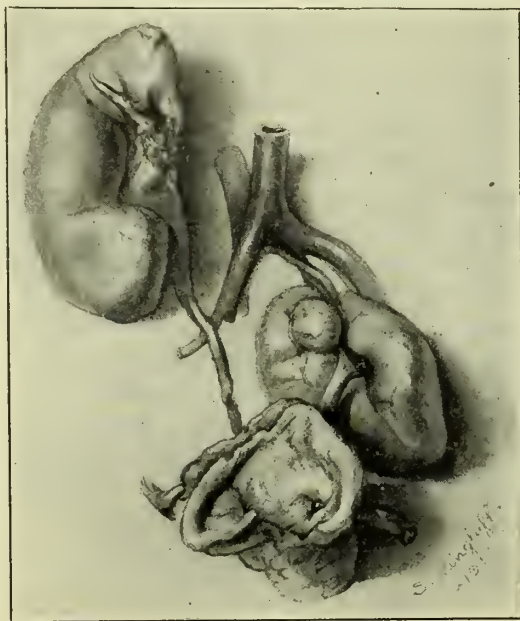


Fig. 1. Kidneys, with blood supply of left kidney, and bladder (part of which has been cut away), dissected out, showing approximate relations. The abdominal aorta and inferior vena cava have been cut off above their bifurcations.

### Report of Case.

L. L. B., 6 mos. old, 1917, No. 20, was admitted to the Thomas Wilson Sanatorium for Children, Baltimore, on August 11, 1917.

**Family History:** Unimportant.

**Past History:** He was weaned at 2 weeks of age, since which time he has been on formulae of cow's milk, water and sugar. Otherwise unimportant.

**Present Illness:** Three weeks ago he had a sudden onset of vomiting, high fever, and numerous loose, watery stools, containing much mucus and blood. Since that time he has grown progressively worse, has lost a lot of weight, and at the present time can retain neither food nor water.

**Physical Examination:** Markedly emaciated and dehydrated, ill-looking child, cross, fretful, whining. He weighs 7 lbs. 1 ounce stripped. Abdomen large, soft, lax, consistency of dough. Stool: Loose, watery, much mucus, occasionally small blood streak.

**Course in Hospital** was progressively downward; although gavaged and lavaged on numerous occasions, given salt solution intraperitoneally, and fed and given stimulants per rectum, he sank rapidly, vomited almost everything given by

mouth, had numerous loose, watery stools, with much mucus and occasionally blood specks. He emaciated markedly and died Aug. 23, 1917, at 5:05 p. m.

**Clinical Impression:** Acute ileocolitis.

**Autopsy Findings:** Autopsy Aug. 23, 1917, 7 p. m.

Body is that of a markedly emaciated negro baby. Otherwise skin and external appearances show nothing of note.

**Body Cavities:** There is a moderate enlargement of the mesenteric lymph glands, particularly these in the region of the large intestine. Otherwise negative.

**Heart:** Negative.

**Lungs:** Negative save for slight hypostatic pneumonia in both lower lobes.

**Liver and Spleen** are moderately enlarged, pale, soft and white.

**Stomach, Duodenum, Pancreas** show nothing of note.

**Kidneys, Adrenals:** Both adrenals are normally situated and show nothing of note. The right kidney is normally situated and shows nothing of note. The left kidney is found deep down in the pelvis, fixed in this position, not freely moveable. It is covered anteriorly by peritoneum and by the upper one-third of the urinary bladder. It rests on the psoas major muscle, the fifth lumbar vertebra and the sacrum posteriorly. The superior extremity points towards the acetabulum of the left innominate bone, the inferior extremity towards the fifth lumbar vertebra. The hilus is deflected so that it points anteriorly, upward and towards the left. The kidney is somewhat misshapen, being thick, short and having the superior extremity slightly folded onto the body of the kidney. Both the right and left kidneys show signs of fetal lobulations, this being more marked in the left kidney. The left kidney weighs 10 grams and measures in its greatest dimensions 4 by 3 by 2½ cm. The right kidney weighs 14 grams and measures in its greatest dimensions 5½ by 3 by 1½ cm. The left ureter is short, being 4½ cm. long. The right ureter is 7½ cm. long. A small probe can readily be passed through both ureters. The blood supply of the right kidney shows nothing of note. The left renal artery is short, being 1½ cm. long, springing off of the common iliac artery 1 cm. below the bifurcation of the abdominal aorta. A single vein 1¾ cm. long runs from the kidney to the left common iliac vein ¼ cm. below the bifurcation of the inferior vena cava. On section and microscopically neither kidney shows anything of note.

**Intestines:** Duodenum, jejunum, and upper parts of the ileum show nothing of note. In the lower 3 or 4 inches of the ileum the intestinal walls are smooth, thickened, swollen and red. Here and there minute punctate hemorrhages can be seen. The walls of the large intestine are also

red, smooth, thickened about twice their normal width. The lymph follicles stand out prominently. Small punctate hemorrhages can be seen in the colon as described in the lower ileum. No ulcers or perforations.

**Anatomical Diagnosis:** Acute ileocolitis; slight broncho-pneumonia; congenital misplacement and malformation of the left kidney.

Since an ectopic, or pelvic, kidney is due to developmental defects of the renal "anlage," it is to be distinguished from the moveable kidney, which has wandered away from its normal position. During the 4th week of fetal life the earliest development of the kidney (6) makes its appearance by a tubular outgrowth from the posterior wall of the Wolfian duct. These masses, capped with mesoblastic tissue, ascend from about the second sacral vertebra, reaching their normal position in the lumbar region in the neighborhood of the suprarenal bodies at about the 3rd month of fetal life, when they receive their vascularization. Ascent and rotation of the kidney may stop at any point, the kidney in such cases becoming fixed and corresponding somewhat in size and shape to its location. The development of the suprarenal bodies is much more complex, their final relation to the kidneys being merely a topographical relation, since there is no developmental relation between the two. They make their appearance at an early stage while the Wolfian bodies are still in a well developed condition.

Although comparatively rare, pelvic kidneys occur frequently enough to interest diagnosticians, and a sufficient number of them become diseased. They are to be kept in mind in all abdominal tumors, and masses felt per rectum. Parak (7) reported a case in a 17-year-old patient with absence of the vagina, except for about a quarter of an inch, and absence of the uterus, one ovary and one tube. The kidney, felt per rectum, and thought to be the uterus prior to operation, was a central kidney, slightly horse shoe shaped, placed low down. Guizetta (8) in a series of 15 renal anomalies studied on cadavers found genital anomalies in one-third of the cases

which suggests to him that the discovery of genital anomalies might aid in the diagnosis of dubious renal anomalies. The vas deferens was absent in quite a large number of his cases.

Clinically, cystoscopic examinations and pyelography gave the most accurate data. The ureter from an ectopic kidney is usually much shorter, and may be coiled and distorted, while the shadow of the pelvis of the kidney may be seen. Frequently pulsations (5) in the region of the trigone may be seen, transmitted from abnormally large renal vessels. In the female the differential diagnosis is frequently more difficult than in the male, because of the symptoms referable to the adnexa. Diseased pelvic kidneys have been confused with appendicitis, pyosalpinx, and other acute abdominal conditions. A misplaced kidney may seriously complicate pregnancy, particularly if it is situated low down.

With the exception of removing such a kidney to as nearly a normal position as possible, treatment of other pathological conditions of pelvic kidneys differs in no way from that of normal kidneys.

### Summary:

1. Pelvic kidneys occur fairly frequently in anatomical dissections, and are occasionally found in the living.
2. They are to be ruled out in vague abdominal tumors.
3. When diseased, treatment is the same as in a normally placed kidney.
4. Clinically they are often confused with other abdominal tumors, and when diseased, with other acute abdominal conditions.

436 Peachtree St.

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**MEDIAN EPISIOTOMY.\***

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The fact that childbirth has for centuries been regarded as a normal process both by the laity and the profession has militated against any advance necessitating active intervention. Nevertheless, the progress which was given to obstetrics through the introduction of forceps and the recognition of the true nature of puerperal sepsis has been far reaching.

The disasters and ill effects which follow childbirth are in a large part due to trauma at the time of delivery and are still a source of great concern. It would seem, therefore, that any step which could dispense with these sequelae would be of the greatest value. This is obviously the aim of all obstetrical specialists.

In the main there are three prophylactic measures advocated for the prevention of perineal relaxation originating from childbirth: (1) immediate repair of all lacerations, (2) slow dilation to allow stretching of the soft parts, and (3) some operative procedure, particularly episiotomy.

The traumatic origin of vaginal prolapse is in the main explained by the anatomical relations of the parts involved, although difficulties of dissection, the varied nomenclature, and the particular function of the individual tissues have had a tendency to cloud the issue. The following anatomical relationships are stressed, that the mechanism of perineal relaxation be better understood.

(1) Over the urogenital triangle the fascia is divided into two layers; a superficial, which is merely a portion of the fatty layer covering the body, and a deep layer, the fascia of Colles. This latter sheet of fascia is attached to the interior lips of the pubic rami on each side and posteriorly it is tucked around the two superficial transverse perinei muscles and blends with the base of the urogenital dia-

phragm as that structure spans the space between the ischial tuberosities. Deep to this fascia and superficial to the inferior fascia of the urogenital diaphragm (O. T. Triangular Ligament) lie three small mus-

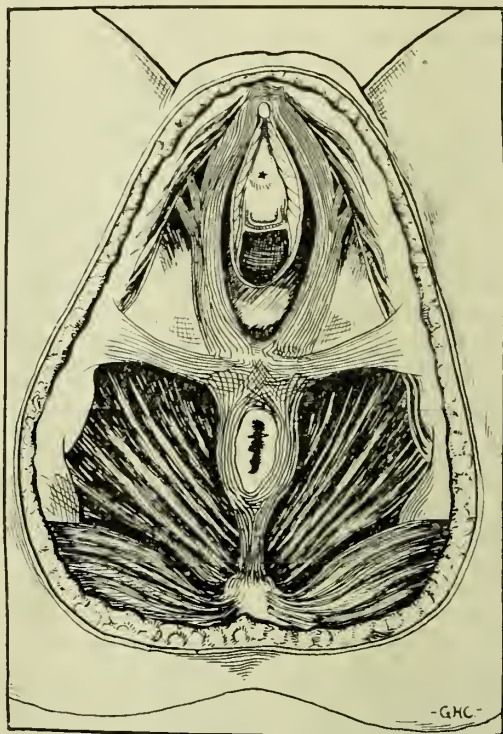


Fig. 1. The fascia of Colles has been removed and the first muscle layer is shown. It will be noticed that there are no structures of importance in the midline between the vagina and the anus.

cles; (1) the superficial transverse perinei, which pass medially from the inferior rami of the ischium to the external sphincter ani and the central point of the perineum, (2) the ischio-cavernosus, and (3) the bulbo-cavernosus (O. T. Sphincter Vaginae). The latter encircles the vagina, closely adapted to the bulb of the vestibule and Bartholin's glands, and is inserted into the external sphincter ani and the central point of the perineum.

(2) The urogenital diaphragm (O. T. Triangular ligament) is the triangular partition which spans the pubis arch and separates the anterior (urogenital) part of the perineum from the pelvis. It consists of two muscles, the deep transverse perinei and the sphincter urethrae enclosed between two layers of fascia. The inferior layer of fascia is automatically the fascia of the deep transverse perinei muscles, and

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- (1) Studdiford—Johnson's Operative Therapeutics, pp. 257 ff.
- (2) De Lee—Am. Jour. Obs. and Gyn. Oct., 1920.

the superior layer is a portion of the parietal pelvic fascia. The two layers are blended anteriorly and posteriorly, and are attached laterally to the margins of the pubic arch, enclosing between them not only the two muscles, but the membranous part of the urethra and part of the vagina.

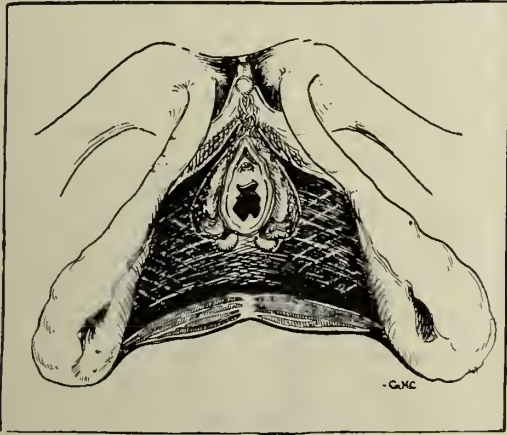


Fig. II. The superficial muscles have been removed, showing the urogenital diaphragm (both layers) enclosing the transverse perineal muscles. Superficially are shown the bulb of the vestibule and Bartholin's glands.

(3) The pelvic diaphragm, which separates the pelvis from the perineum, is composed of three muscles enclosed in fascial layers. The muscles are the levator ani, the coccygeus, and the pyriformis. The levator, lying anteriorly, forms the greater and most essential part of the structure; the coccygeus, which fills up the space behind, being merely the remains of the caudal flexor. The pyriformis forms the upper posterior pelvic wall, and plays a negligible part in obstetrical pathology.

The levator ani is a paired V-shaped muscle of triple origin. The anterior fibers (the pubo-coccygeus) arise from the back of the pubic bone, the intermediate fibers (ileo-coccygeus) arise from the "white line" between the pubis and the ischial spine, and the posterior fibers arise from the inner surface of the ischial spine. The pubococcygeal fibers form a distinct band which pass directly downward and backward, some uniting with the fibers of the external sphincter ani, others insert into the wall of the anal canal, and still others, joining the ileo-coccygeal bundles, sweep round posterior to the anal canal and join

with similar fibers of the opposite side. The posterior fibers pass backward and medially, and are inserted into the ano-coccygeal ligament and the sides of the lower segments of the Coccyx.

The pubo-coccygeal bundles are the most important part of the levator. As they pass backward they embrace and are attached to the lateral walls of the vagina, acting as a second sphincter. Studdiford (1) has pointed out that "the tissue lying between the halves of the levator ani, and at the points of attachment of the external sphincter ani and the deep transverse perineal muscles in the perineal body, is made up largely of involuntary muscle fibers." In other words, the long held conception of levator ani fibers passing from side to side in front of the anus is incorrect, but instead the two bellies of the pubo-coccygeus are connected by a bridge of smooth muscle. The contraction of

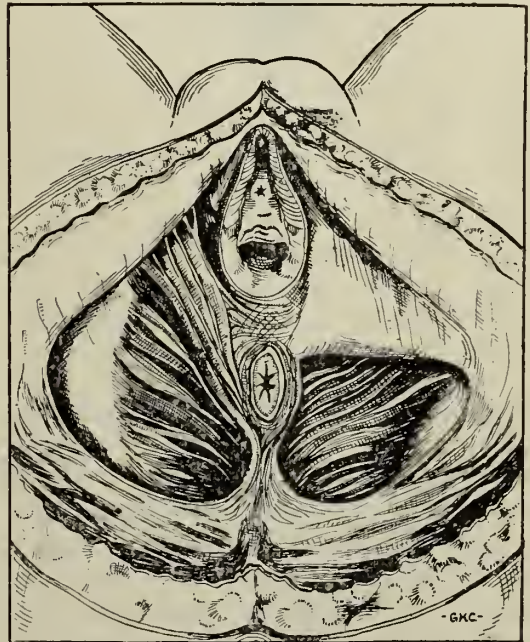


Fig. III. The urogenital diaphragm has been removed on one side, showing the course of the pubococcygeal fibers of the levator. Between the vagina and the anus are seen the involuntary muscle fibers. (After Studdiford.)

these fiber draws the two arms of the V-shaped levator together, thus pulling the sphincter ani forward and augmenting the power of the levator.

The pelvic fascia is a continuation of



the fascia covering the iliac muscles. It extends downward into the pelvis, passing to the lateral side of the hypogastric vessels, across the sacrum, and behind the pelvic colon and rectum. Along a line ex-

arch, which is attached behind to the ischial spine and is continued forward upon the sides of the bladder to the symphysis pubis as the lateral pubo-vesical ligaments. In the anterior part of the perine-

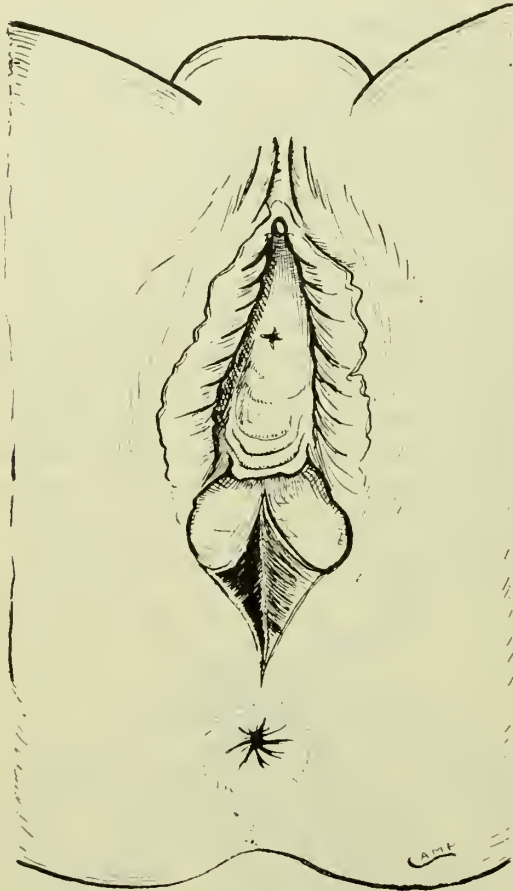


Fig. IV. The median incision after delivery.

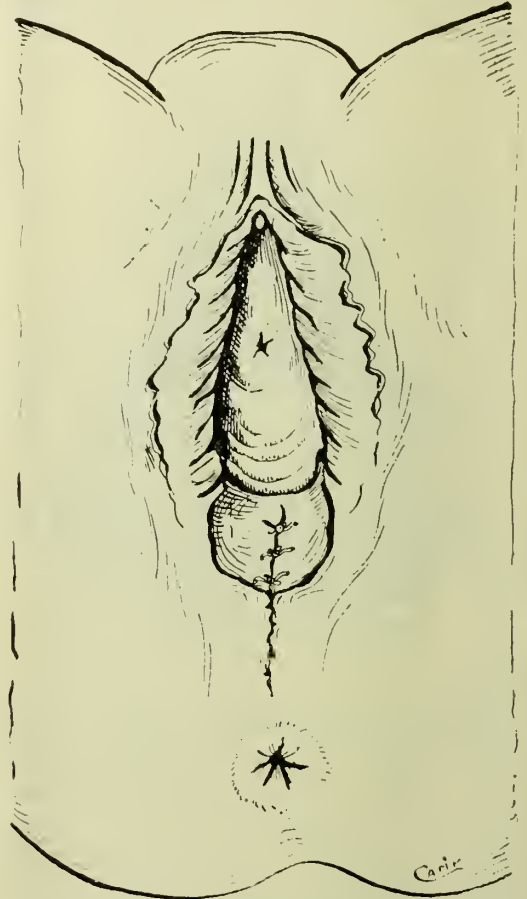


Fig. V. Repair of the incision. Mucous membrane closed with interrupted stitches. Skin closed with subcuticular stitch.

tending from the ischial spine to the posterior surface of the body of the pubic bone, the fascia is thickened to form the "white line" from which the ilio-coccygeal portion of the levator ani takes origin. In this region the fascia splits into three parts, the most lateral continuing downward over the obdurator muscle (obdurator fascia), the middle layer blending with the under surface of the levator ani (anal fascia, or inferior fascia of the pelvic diaphragm), and the upper layer passing downward over the surface of the pelvic diaphragm to form the superior fascia of that structure. A thickened portion of the latter layer is known as the tendinous

um, the parietal fascia extends medially as the superior fascia of the urogenital diaphragm, blending with the fascia from the opposite side and becoming continuous around the anterior border of the levator ani with the superior fascia of the pelvic diaphragm.

In the type of vaginal prolapse following trauma, we are concerned with three musculo fascial sheets; (1) the fascia of Colles and its underlying muscles, (2) the urogenital diaphragm, and (3) the pelvic diaphragm. All of these are closely connected, and no one will fail to be struck with the intimate relationship of the pel-

vic fascia with the bladder, urogenital diaphragm and rectum. Bearing in mind the position of the pubococcygeal fibers, it is easily seen why tears extending obliquely downward and outward are more difficult to repair and anatomical coaptation of tissues less apt to be accomplished, for the laceration produces injury at the point of junction of the pubo-coccygeus, the involuntary muscle columns connecting the pubococcygeal columns, and the urogenital diaphragm. If anatomical approximation is not secured by suture, "the relations of the pubococcygeus on the injured side to the external sphincter are disturbed, and the sphincter is drawn to the uninjured side the deep transverse perinei and the urogenital diaphragm on the injured side retract and pull the pubococcygeus outward" (Studdiford). A laceration through the central point of the perineum involves in the main only the involuntary muscle fibers, does not injure the pubococcygeus, and is easily and anatomically repaired. Unfortunately, the midline is less often involved in a second degree laceration than the tissues in the lateral vaginal sulci.

Immediate repair of lacerations needs no discussion since where this occurs, repair by suture is always indicated.

On the other hand, there is considerable controversy as to what injuries do occur with slow dilatation where there has been no laceration. It is a paradoxical fact that many women, who are delivered slowly and with particular care to prevent laceration, afterwards present the most marked vaginal prolapse. On the other hand, women whose perinei are torn, and are immediately repaired, show better end results with regard to pelvic support. The explanation for this lies in the fact that the individual muscle fibers are torn or are stretched beyond their limits of elasticity without an actual rupture which is visible as an evident laceration at the time of delivery.

In addition it is inconceivable how a head of normal size and consistency can pass through the vagina without injuring the enclosing fascia of the urogenital dia-

phragm either by stretching or by actual rupture. According to De Lee, "labor always ruptures the urogenital septum, tearing it in all directions, and also from its ramifications with the endopelvic fascia, both above and below the levator ani." It is to be emphasized that the superior fascia of the urogenital diaphragm is a part of the pelvic fascia, and that it is fused with the fascial layer supporting the base of the bladder. Likewise, the fascia above and below the levator ani is a part of the pelvic fascia and with a stretching or tearing of these layers the relationships of the vesico-vaginal, recto-vaginal portions, and the pubo-vesical ligaments are disturbed even if these structures are not actually ruptured. "Thus it is that most of the damage resulting from labor is due to injury, rupture, distraction and displacement of fascia, and less to tearing of the muscles" (De Lee).

This brings us to a discussion of some method involving actual surgical intervention that will prevent either visible or hidden lacerations. Thus far lateral and medium episiotomy have been advocated. The recent contribution of De Lee (2) admirably describes the former method.

Lateral episiotomy, as advocated by De Lee as a necessary adjunct to his "prophylactic forceps" operation, is too difficult an operation (so admitted by De Lee) for the ordinary practitioner, and in our mind, accompanied by many unnecessary dangers and stumbling blocks. To enumerate briefly: (1) the incision is through a point where repair is extremely difficult, and a number of structures are involved including the bulb of the vestibule, the bulbocavernosus muscle, the superficial and deep transverse perinei muscles, and the pubococcygeal fibers of the levator ani. Should repair fail, rectocele of a severe grade would surely follow, as in an unrepaired tear in this region. (2) Hemorrhage is much greater, and although easily checked, is apt to cloud the field. (3) The superficial perineal nerves are severed. (4) Should the glands of Bartholin be injured, infection or cyst formation are likely to



follow. (5) The operation requires much longer time than the median episiotomy.

On the other hand median episiotomy is a simple, easy operation, having most of the advantages of the lateral incision, but reducing its disadvantages to a minimum. In the first place, it is obvious that an incision through one point of the circle of the vagina surrounding the head will enlarge the circumference of that circle as much as an incision in any other direction. Turning again to the anatomy of the perineum it is seen that the first portion of the incision is through the skin of the fourchette and does not involve the bulbocavernosus muscle nor the underlying bulb nor Bartholin's glands. As the incision goes deeper only the involuntary muscle fibers connecting the puboccygeal columns and the urogenital diaphragm are cut. This allows an enlargement equally as great as an incision of equal length through the main muscle sling of the levator ani. There is no danger of an incorrect closure for the muscle fibers in the central point of the perineum, being strongly attached to their fascial planes, do not retract as do the severed portions of the levator. Here only the very terminal vessels and nerves are cut, and there is practically no bleeding.

The steps in the delivery of primagradae by this method are briefly as follows: As soon as the cervix is fully dilated, as noted by rectal examination, the patient is prepared for delivery and every aseptic precaution is observed as in laparotomy. The buttocks are brought to the edge of the table and the legs supported by assistants or in stirrups. As soon as definite bulging occurs, with nitrous oxide or light ether anaesthesia, a cut is made with scissors directly in the midline through the fourchette, fascia, and muscle lying between the vagina and the external sphincter muscle. The patient is then allowed to make expulsive efforts, with gas or ether administered during the pains, the head being carefully watched and supported to check a too sudden passage by a quick expulsive effort. As soon as the chin can be felt behind the rectum, the

patient is placed under full ether anaesthesia, and the head slowly delivered, causing extension by lifting the chin upward and outward, at the same time guarding against a too rapid delivery by counter-pressure on the occiput with the other hand. By this manoeuvre, the head can be perfectly controlled and balanced between the two hands (Riggen's manoeuvre). The shoulders, trunk and extremities are delivered carefully in the routine manner.

As soon as the head is born, 1 cc. of pituitrin is given intramuscularly, and by the time the cord is tied and cut, the placenta will usually have separated and can be delivered by simple expression. If the placenta has not separated the repair is done before its delivery.

After delivery the area of incision is diamond shaped, one triangular half of which extends about one inch inside the vagina, the other triangular half extending through the skin and central portion of the perineum from the vagina almost to the external sphincter ani. The vaginal triangle is repaired first with three or four interrupted sutures of No. 1 chromicized catgut, accurately approximating the edges and picking up the submucous tissue. The external triangle is then repaired in three steps: (1) the muscular tissue is approximated with two sutures of No. 2 chromicized catgut, (2) the fascia with a continuous suture of No. 1 chromicized catgut, and (3) the skin is closed with a subcuticular stitch of the same material. With proper assistance the closure does not require more than ten minutes. During the first two weeks of the puerperium the patient is placed on her abdomen for fifteen minutes four times daily to facilitate drainage, and ordinary routine post-partum care observed.

While median episiotomy does not enlarge the vaginal opening sufficiently to allow passage of the head without some dilation, yet the advantage to be gained is never lost and by slow delivery of the head there is rarely any other tear than the clean sharp surgical wound. It has been

pointed out by some that there is danger of a complete tear since the cut is directed toward the sphincter ani. We have never seen this occur, for we believe the operation is absolutely contraindicated in cases with a narrow pubic arch, but in any case should it seem evident that the tear is likely to injure the rectum, the incision can be directed to the side. Here, as in ordinary delivery, injury to the sphincter is usually the result of haste or negligence.

In addition to narrow pubic arch, infection should be considered as a contra-indication. Cases with a positive gonorrhoeal smear or with a persistent leucorrhoea should be delivered without episiotomy.

By this procedure, as simple and easy to repair as a first degree laceration, we have restored the vaginal canal to an almost virginal condition, and in no case has vaginal relaxation followed. However, the time elapsing from delivery to follow up

examination has been too short in most cases to make an absolute statement in this regard. It is not offered with any claim of originality, but as a simple procedure producing results equally as good but without the disadvantages of a radical and difficult lateral incision, and lessening to a marked degree the most frequent ill effects of labor.

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#### ANNOUNCEMENT.

At the recent meeting of the Council it was decided to admit new members for the remainder of this year, after July 1st, for \$2.50 dues. This does not apply to those who have previously been members and have left their membership lapse.

Let's exert every effort to bring every recent graduate into the fold.



**THE JOURNAL**

OF THE

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JUNE, 1922

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Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****ATLANTA GRADUATE SCHOOL OF  
PHYSICIANS AND SURGEONS.**

With the formal opening of The Atlanta Graduate School of Physicians and Surgeons in the late Fall, Atlanta as the medical center of the southeast will be permanently established.

Several months ago, the members of the medical board, White Unit, of Grady Hospital, organized themselves into the faculty of a postgraduate medical school, and since have been busily engaged in perfecting details for the successful conduct of this institution.

The general offices of the school are located in Grady Hospital at 101 N. Butler Street, and all of the valuable clinical ma-

terial of this hospital is available for teaching purposes. In addition to the city hospital, practically every private sanitarium in Atlanta will be affiliated with the Graduate School.

Dr. William Perrin Nicolson has accepted the office of Dean, and Dr. Michael Hoke has accepted the position as President of the Faculty. Dr. Garnett W. Quillian is Vice-Dean, and Dr. Frank Eskridge is Proctor for the Faculty.

Among those who will serve as consultants are: Dr. Charles G. Giddings in Internal Medicine; Dr. William Perrin Nicolson, in General Surgery; Dr. Michael Hoke, in Orthopedic Surgery; Dr. E. C. Davis, in Gynecology; Dr. W. E. Campbell, in Eye, Ear, Nose and Throat Work; Dr. L. B. Clarke, in Pediatrics; Dr. Miller Hutchins, in Dermatology, and Dr. Malcolm Turner, in Oral Surgery.

**New Buildings To Be Erected.**

The executors of the estate of the late Mr. Albert Steiner have definitely agreed to erect two new buildings for the Grady Hospital, one to be a modern and perfectly-equipped Outdoor Clinic building and will be used exclusively by the visiting staff of the White Unit for the care of white patients. Much of the clinical work of the school will be carried on in this building.

The other building is to be devoted exclusively to the study, diagnosis and treatment of cancer, and will be opened to physicians in good standing throughout the city, state and section. With the acquisition of these buildings the plans of the faculty of the Graduate School to offer special courses in all departments for graduate physicians will be speedily executed.

It is understood that in the early Fall the first course which will be offered will be one in Orthopedic Surgery, under the direction of Drs. Michael Hoke, B. D. Thornton, T. P. Goodwyn and Fred Hames, and that in quick succession special courses in General and Abdominal Surgery, including operative work on the cadaver, clinical demonstrations and operative clinics, etc.; Gynecology and Obstetrics, In-

ternal Medicines, Eye, Ear, Nose, and Throat, Pediatrics, Dermatology, Neurology, Urology and Oral Surgery, will follow.

### Personnel of Faculty.

The faculty of the Postgraduate School numbers among its members many of the most prominent physicians and surgeons of the city.

In Medicine, the special courses will be given by Drs. Chas. G. Giddings, R. T. Dorsey, Arch Elkin, Jos. H. Hines, C. C. Aven, E. S. Byrd and Frank Wells.

In Surgery, special courses will be provided by: Drs. William Perrin Nicolson, LeRoy Childs, H. R. Donaldson, Frank L. Eskridge, T. C. Davison, Blake T. Armstrong, B. H. Clifton, Harry Vaughn, O. B. Bush, Floyd McRae, John W. Turner, J. T. Floyd and Geo. W. Fuller.

In Obstetrics and Gynecology, special courses will be provided under the direction of Drs. E. C. Davis, Garnett W. Quillian, L. Sage Hardin, Marion T. Benson, W. E. Yankey, L. G. Baggett, W. P. Nicolson, Jr., J. D. Manget, O. H. Matthews and W. E. Barber.

In Ophthalmology, special work will be provided by Drs. Guy D. Ayer, Hugh Lokley, J. R. Childs, Arthur Fort, J. H. Buff, H. C. Crawford, R. M. Nelson and Louis C. Rouglin.

Dr. Malcolm Turner and Dr. J. F. Stainback will direct courses in Oral Surgery. Drs. J. W. Landham and J. S. Derr, in X-Ray work, and Dr. James J. Martin in the use of Radium.

### Special Courses for Technicians.

There is being given now a special course in Anaesthesia by Drs. W. S. Akin and J. F. Collier, and Mrs. Alice Bethune, and courses for graduate nurses in X-Ray and Laboratory are available.

In Diseases of Children, special courses will be given by Drs. L. B. Clarke, W. N. Adkins, Howard Bucknell, Chas. Mashburn and Marshall R. Sims.

In Neurology, Dr. Newdigate Owensby will have as his associates Drs. Harris Yarbrough and Allen Little.

In Urology, Dr. M. L. Boyd with Dr. E. B. Anderson will give special courses in venereal diseases, and cystoscopy.

The general direction of all work is under the direct supervision of Dr. Spencer A. Folsom, the able Director of Clinics.

As suggested by the above names, the faculty is well organized, and just as soon as physical accommodations can be provided, the various courses will be offered to the doctors of the medical profession for post-graduate work.

It is believed that this institution for graduate doctors will fill a definite need for the South, and together with the Medical Department of Emory University, which teaches only under-graduates in medicine, will make Atlanta definitely and permanently the medical center of this section.

Announcement of the courses will be made from time to time, and detailed information may be secured on request from Dr. Garnett W. Quillian, Vice-Dean, or Dr. Frank Eskridge, Proctor, 101 N. Butler Street, Atlanta, Georgia.

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### NO, THE PUBLIC IS NOT AN ASS!

An eminent but somewhat irascible statesman, on being informed that the public had rejected a measure in which he was interested, remarked bluntly: "The public is an ass." Physicians who have viewed with astonishment, if not with dismay, the apparent popularity and financial advancement of ignorant mechanics, clerks and even ne'er-do-wells who have entered the healing art by the chiropractic route, have been inclined to approve the veracity of this caustic dictum. But recent developments seem to indicate that after all, that kindly, trusting, quizzical, little gentleman, Mr. Common Peepul, is beginning to see the light and to distrust appearances. The series of articles in Leslie's Weekly, previously mentioned in The Journal, revealed some of the obvious fallacies and a few of the rather secret-commercial methods of the exponents of this push and shove school of healing; more recently Collier's, through Uncle Jim Hen-



ry, than whom no better exponent of the common people exists, expressed some querulous doubts as to whether all was right in the land of chiropractic; and now the *Scientific American* (this issue, page 1338) sums up the situation in a simple logical statement. The public, honorable Sir, is not an ass, because an ass never learns. The public is awakening. The little toy balloons of the medical cults go sailing upward, but when they reach the rarefied atmosphere of scientific inquiry they explode with a mild pop and sink into oblivion.—*Jour. A. M. A.*, April 29, 1922.

### THE NEW METHODS OF THE NATIONAL BOARD OF MEDICAL EXAMINERS.

A few months ago the National Board of Medical Examiners adopted a new and what has proved to be an unusually successful plan for conducting its examinations. Formerly each examination was held in one isolated city, so that applicants were required to spend time and money in railway travel that few could afford. The only variation was in the occasional selection of a different city for the examination. Under the new plan, the examination is divided into three parts: Part I to be taken by students at the end of the sophomore year; Part II at the end of the fourth year, and Part III, a practical examination, on completion of the student's hospital intern year. Of great importance, however, is the fact that Parts I and II of the examination may be taken by the student in any Class A medical school, and even Part III may be taken in any one of fifteen large cities in different parts of the country, in which the examinations are held simultaneously—a plan similar to that repeatedly suggested by *The Journal* (3). Under the new plan, also, instead of a nominal fee of \$5, the examination fee has been increased to \$100, \$25 each for Parts I and II, and \$50 for Part III. The results of the first

examination under the new plan have just been received. Instead of from ten to sixty—the latter the highest number heretofore—108 students appeared at this examination, eighty-seven in Part I and twenty-one in Part II; and this in spite of the higher fees. The results of the new plan, therefore, are most encouraging. The more convenient arrangement for the examination, the larger numbers taking it, and the larger income obtained constitute a greater guaranty of the permanence of this board. Instead of being dependent on the charity of a great foundation, it will hereafter be on a self-supporting basis. As shown this week on another page (4), the recognition of the certificate granted by this board is being widely extended. It is now recognized by the Army and Navy for admission to the medical corps of those services; it is accepted by twenty-one state licensing boards in lieu of their own written examinations, and it is accepted by the Triple Qualification Board of Scotland and the Conjoint Board of London for admission to their final examinations.—*Jour. A. M. A.*, April 29, 1922.

### DISTRIBUTION OF PHYSICIANS IN FRANCE.

Irregularity in the distribution of physicians is not a condition peculiar to the United States. As shown in the Paris letter last week, similar conditions exist in France. Mountainous districts or those having poor roads have very few physicians, while large centers of population, and particularly the popular watering and health resorts, are overcrowded with physicians. Large cities and naval ports, the populations of which are mainly industrial, have fewer physicians than other cities of equal size. As to the total supply of physicians, France has a smaller number in proportion to population than the United States. Paris has only one physician to every 700 inhabitants, whereas twelve cities in the United States having more than 500,000 population have one physician to every 530 persons. Marseilles and Lyons, each of which has more than 450,000 in-

3. National Board of Medical Examiners, Current Comment, *J. A. M. A.* 66: 475 (March 4) 1916, and 74: 1104 (April 17) 1920.

4. Page 1314.

habitants, have one physician to approximately 850 persons, whereas twenty-one cities in the United States having between 200,000 and 500,000 inhabitants have one physician to approximately every 500 persons. In mountainous districts, the scarcity of physicians is even more pronounced than in the United States, in some of these districts the number of physicians being as few as one to every 4,000 inhabitants. The irregularity of distribution in France, therefore, is due to the same causes as in the United States, that is, economic conditions and the desire to have access to better social and educational advantages.

—*Jour. A. M. A.*, May 20, 1922.

### STATISTICS OF THE STATE BOARD EXAMINATIONS.

The following are abstracts from editorials published in *The Journal of the American Medical Association* for April 29, 1922:

This week, for the nineteenth consecutive year, *The Journal* publishes statistics based on official reports of examinations conducted by state medical boards, and of registrations by reciprocity and other methods. During these nineteen years the work has met with an increasing support and co-operation from the secretaries of state licensing boards, who have furnished reports of their examinations. The reports have been carefully checked with alumni lists furnished by the deans of medical colleges, and by this cross-checking, errors have been corrected and the state boards concerned have been notified. Thus, not only are the statistics accurate and reliable, but also state board records have been corrected. We express our acknowledgment for the co-operation of the officers of both state licensing boards and medical colleges by which the publication of these statistics has been made possible.

These statistics are of great importance, as they relate to medical education and to medical licensure. For each state they show the number and qualifications of physicians admitted to examinations; the character of the colleges from which they graduated; the numbers registered and rejected, and the percentages. The material

is so arranged that the facts regarding any one college or state can be compared with other colleges and states. The statistics show that in some states people are well protected against illiterate and incompetent physicians, while in others, in varying degrees, the opposite situation prevails.

#### Connecticut and Arkansas.

Two glaring instances in which the people are not protected are found in Connecticut and Arkansas. In these states, although reasonably high standards are enforced by the regular medical boards, an open door for those with inferior qualifications is provided by a separate board of eclectic medical examiners. In Connecticut the eclectic board licensed seventy-one physicians, sixty-one of whom graduated from low-grade medical colleges, and three graduated from the Pacific Medical College of Los Angeles, an institution which was never recognized by the California board as a professional school of any type, while the authenticity of the credentials of one candidate who was licensed is seriously in doubt. This eclectic board assumed the authority to examine not only the graduates of eclectic medical schools, but also all others who applied. Of the seventy-one licensed, only twenty-five graduated from eclectic colleges, while forty-six, or 70.7 per cent., were graduates who would supposedly apply to the regular medical board. This group included thirty graduates from the St. Louis College of Physicians and Surgeons, a nominally regular medical school which is reported as not recognized by the Connecticut (Regular) Medical Board. It is reported as not recognized also by the licensing boards of Missouri and forty-five other states.

In Arkansas, out of twenty-three candidates licensed by the eclectic board, twenty were graduates of low-grade medical schools. Most of these were from the Kansas City College of Medicine and Surgery, a nominally eclectic institution, reported not recognized by the licensing boards of forty-two states. Why should Connecticut and Arkansas longer tolerate these eclectic boards, which are making these states the



literal dumping ground of graduates of inferior medical schools?

### **The Licensing of Osteopaths.**

During the last five years a few boards have admitted osteopaths to their examinations, and have licensed many of them as physicians. The objection to this is not that these candidates are osteopaths, but that they are not required to present educational qualifications equal to those demanded by physicians. In two of these states—Colorado and Texas—the boards refuse to admit graduates of low-grade medical colleges to their examinations. Nevertheless, they admit graduates of osteopathic colleges which are not comparable with the lowest type of medical school. Reputable medical schools require for admission two years of college education in addition to a four-year high school course. Not one of the osteopathic colleges requires more than a high school education for admission, and only two enforce even this requirement. Inspection also discloses that osteopathic colleges lack properly equipped laboratories; they lack expert, trained instructors in the fundamental medical sciences, and they seriously lack clinical facilities. In the instruction, also, the osteopathic idea is so emphasized that many other valuable therapeutic measures are neglected. Despite these serious deficiencies in instruction, ninety-two osteopaths were licensed last year as physicians—twenty-nine in Texas, twenty-five in California, thirteen in Colorado, eight in Massachusetts, seven in Wisconsin, six in Oklahoma, three in Utah and one in Oregon.

### **Qualifications of Physicians Licensed.**

Special attention is called to Table I, (1) which shows the classification of the medical colleges from which the physicians licensed in each state were graduated. A review of this table in the state board numbers for 1917 to 1921 inclusive shows that California licensed 342 graduates of low-grade medical colleges, the largest number licensed in any state during the five years.

The next largest numbers licensed were 167 in Illinois, 134 in Missouri, 130 each in Arkansas and Texas, and 106 in Colorado. In Missouri, the number of such graduates licensed during the last three years was greatly diminished; but, unless there is a repeal of the recent amendment which weakened the medical practice act, the number will again be increased. Table I shows also that in eight states the boards granted licenses by reciprocity to graduates of low-grade medical schools, although they avowedly do not admit them to their examinations.

### **Effects of Publicity.**

The effectiveness of publicity in medical licensure may be noted in Table M, on page 1313. Higher standards of preliminary education have been adopted; all states but Colorado require that applicants must have graduated from a medical school; all but New Mexico require an examination of all applicants; forty-seven states have obtained and are using the authority to refuse recognition of low-grade medical colleges; forty-four states have established reciprocal relations with other states; ten states require a hospital internship as an essential for the license, and all but two states—Arkansas and Connecticut—have abolished their separate boards of eclectic medical examiners or have limited their authority.

On medical education the effect of these statistics has been even more pronounced. The publicity regarding the failures of graduates at state licensing examinations and regarding the nonrecognition of various colleges (Table D) has impelled medical schools to improve greatly their facilities for teaching. Such improvements are evidenced by the larger number of colleges which are now recognized in all states as compared with five years ago.

Briefly, to each medical school these statistics show what improvements are essential if its graduates are to succeed in state board examinations; what state boards are requiring as a minimum of preliminary education, and in what states the boards are refusing to examine its graduates. To

each state board these statistics show the qualifications of the physicians licensed as compared with those licensed in other states, and the further improvements which are needed in its educational standards and methods of examination. Owing to political conditions and other factors, standards in certain states fluctuate considerably; but on the whole, there has been decided progress. Continuous publicity has led to a general improvement and a greater uniformity in the methods of examination; there has been a lessened confusion in the licensing of physicians throughout the country, and correspondingly better safeguards for the public against the licensing of incompetent practitioners.—*Jour. A. M. A.*, April 29, 1922.

#### SEMI-ANNUAL MEETING OF ANTI-TUBERCULOSIS STAFF.

On Wednesday, May 17th, 1922, sixteen of the eighteen members of the Medical Staff of the Atlanta Anti-Tuberculosis Association met in conference at their semi-annual meeting. A supper and social hour preceded the conference which was preceded over by Dr. C. C. Aven, chief of staff.

In his opening address, Dr. Aven presented some facts about the National Association and gave some report of the recent annual meeting which has been held in Washington, D. C. He also announced that Dr. Lawrason Brown, of Saranac Lake, N. Y., had been made the president of the National Association for the coming year and the physicians present expressed their pleasure in being able to co-operate under such leadership. The monthly report for the Atlanta Association showed that 1121 patients were under treatment during the month and that the nurses had made 887 visits into homes.

Dr. L. H. Muse, head of the Department of Pediatrics, presented the need for more help in view of the fact that the Association was bringing under observation all the children living in homes where there are patients being treated in this clinic. Dr. Muse also stated that in order to fight

the disease effectively it was very essential that proper diet should be arranged for every one of these underweight children who come from tuberculosis homes. He urged that this need be recognized by the citizens of Atlanta who are contributing to the milk fund, if they wished to help stamp out tuberculosis. Dr. G. W. Holmes Cheney and Dr. Willis Ragan sustained Dr. Muse in his plea. During the month of April alone, 114 treatments were given in the children's department.

The chairman introduced Dr. J. R. Childs who has recently been added to the staff in charge of the Eye, Ear, Nose and Throat department. Dr. Childs presented a plan looking forward to increased efficiency in handling cases and suggested some added equipment.

Dr. S. A. Folsom who has charge of the work in the Negro clinic, expressed himself as under deep obligations to the Association for his opportunity to study chest conditions and commented upon the fact that the preparation of the patient and the follow-up work had been invaluable in treating cases.

Dr. Trimble Johnson made a brief talk in which he stated that the 9,000 records filed at the Association offered very valuable material for scientific study and he suggested that one of the men take the lead in developing some phase and that all of the members of the staff assist him.

It was announced that Dr. Z. S. Cowan had been awarded the scholarship at the Trudeau School of Tuberculosis at Saranac Lake and he was expecting to spend six weeks there this summer.

Other members of the staff present were: Drs. Dan Y. Sage, Cosby Swanson, M. B. Copeloff, Marion Pruitt, J. W. Landham, N. M. Owensby, A. M. Dimmock and Herbert Kennedy. Drs. R. M. Eubanks, of the Dental Department, and Allen H. Bunce, of the Laboratory Department, were the only members absent. Miss Margaret Bradley, social service worker at Grady Hospital, and the nurses of the Association were the guests of the staff.



**ATLANTA NEUROLOGICAL SOCIETY.**

The regular meeting of the Atlanta Neurological Society was called to order on March 31, 1922, by the president, Dr. Gaines. The following members were present: Drs. Calhoun, Block, Brawner, Gaines, S. R. Roberts, Clay and Dowman.

Dr. Calhoun reported that since the last meeting of the Society the patient reported by him at this meeting had lost seventeen pounds in weight, had had a general convulsion, and had menstruated. This patient was one in whom the diagnosis of syphilis of the pituitary gland had been made.

The regular program consisted of a paper by Dr. Lewis M. Gaines on "Diseases of the Basal Ganglia, With Special Reference to Certain Types of Encephalitis." An abstract follows:

The basal ganglia include: (1) The corpus striatum. (2) The optic thalamus. (3) Certain small subthalamic collections of gray matter.

The paper deals only with the corpus striatum.

The histological structure of this region is the important conception. The putamen of the lenticular nucleus and the cordate nucleus are identical in structure constituting the neostriatum, while the globus pallidus constitutes the paleo striatum. These two portions of the corpus striatum have quite diverse functions, interruption of which gives rise to characteristic syndromes. These syndromes are exemplified in (1) Paralysis agitans. (2) Huntington's chorea. (3) The Voght Syndrome. (4) Wilson's Syndrome.

The paper discusses those histological changes in the corpus striatum which gives rise to these syndromes and then indicates the comparison of similar symptoms seen in certain types of encephalitis lethargica.

**Discussion.**

Dr. Block: Dr. Gaines has given us an exceedingly clear presentation of the subject of "Diseases of the Basal Ganglia." There are many viewpoints in regard to this subject. I believe that the subject of

dysphagia should be added to the list of conditions in which we feel that there are definite lesions of the basal ganglia. It is a question to be considered as to whether or not many of the cases of paralysis agitans which we have seen in the past were not really sporadic cases of encephalitis. It is certainly true that since the advent of so-called epidemic encephalitis we have seen more cases of paralysis agitans than heretofore. It is likewise interesting to note that so many of the cases of paralysis agitans which we have seen during recent years are in comparatively young individuals. Another point of interest in connection with the subject presented is the vulnerability of the corpus striatum. As a matter of anatomical arrangement, the corpus striatum is perhaps the best protected portion of the brain; yet, on account of the great vascularity it is most apt to be affected by circulating toxins, infections, etc. Two out of three spontaneous cerebral hemorrhages are in this region. As an evidence of the vulnerability of the basal ganglia in cases of toxemia it is a well-known fact that in jaundiced individuals the basal ganglia are found to be more jaundiced than are the other parts of the brain. The knowledge of the globus pallidum and the putamen is of comparative recent development. Is it worth while to split up into numerous clinical entities the various conditions resulting from lesions of these structures, or would it be better to simply group all of these various symptoms complex into one great group? I would like to ask Dr. Gaines if the cordate nucleus is likewise involved in Wilson's Disease or is the lesion confined to the lenticular nucleus? I am under the impression that Wilson in his earlier articles claimed that the lenticular nucleus only was involved.

Dr. Roberts: I have been interested in the comparative anatomy of the basal ganglia in lower and higher animals. In the brains of the lower reptiles these ganglia are relatively very large compared to the cerebral hemispheres, whereas, in the higher animals these structures become

proportionately smaller than other parts of the brain. In other words, with the development of intellect there is a corresponding development of the cerebral cortex, so that the higher an animal is in the intellectual scale, the greater the development of the cerebral hemispheres, and the less prominent are the basal ganglia. In a section of the human brain one is impressed with the relative thinness of the brain cortex, the great size of that part of the brain containing the association tracts, and the prominence of the basal ganglia. Grossly the tissues of the cordate and lenticular nuclei have the same appearance. I agree with Dr. Block in that there is too great a tendency to divide various syndromes too finely. For example, pathologists have divided nephritis into several varieties, basing this division on certain minute pathological changes in the kidney tissues. Whereas, from a clinical standpoint we can hardly do better than to classify nephritis into two groups, namely, acute and chronic. To return to the question of comparative anatomy and physiology, the first main evidence of the central nervous system in the lower animals is expressed in motion. The great vascularity, therefore, of the organs of instinctive or primitive motions, that is, the basal ganglia, has persisted in the higher forms to such an extent that in the human brain there remains perhaps too great a vascularity of these regions. One of the cases reported by Dr. Gaines was seen by me, and was an exceedingly interesting one. Encephalitis lethargica may of itself produce practically any symptom known to neurology or psychiatry.

Dr. Dowman: In connection with my work at the Crippled Children's Hospital, I have had occasion to examine a great many patients with so-called Little's Disease. In attempting to classify these cases I find that they usually fall into two great groups, namely, those cases in which we have neurological evidences of definite pyramidal tract involvement, and those cases of so-called extra pyramidal tract involvement. The first class of cases con-

stitute the typical spastics. Here we have all of the evidences of upper motor neuron involvement, that is, definite spasticity, highly exaggerated deep reflexes, ankle and patella clonus, absence of atrophy, and positive Babinski reflexes. These cases, provided the child's intellect is not hopelessly subnormal can be helped by carefully devised neurectomy of nerves supplying certain of the spastic groups of muscles, particularly the branches of the obturator nerves in cases of great spasticity of the adductor groups of the thighs, supplemented later by certain orthopedic procedures, as ankle atabilization, etc. The second great group are those cases of extra pyramidal tract involvement. The lesions in these cases are probably located principally in the corpus striatum. Such cases do not exhibit a true spasticity but rather a true rigidity which is intensified by excitement and effort to walk. In supporting such children while they make an effort to walk, the legs become very rigid, the child becomes excited, and there is performed a series of bizarre movements of the legs in a fruitless effort to make steps. After a few moments the excitement will subside and the rigidity will disappear, the child's legs relaxing and the equino varus position of the feet disappearing so that the child stands with the feet flat on the underlying surface. The deep reflexes are not usually exaggerated in such cases and the Babinski reflex is absent. The bizarre movements of the extremities can be particularly brought out by offering the child some object to be grasped with the hands. In making an effort to take such an object the child's arms will go through a series of wave-like movements before the object is finally reached and grasped. Such children are unable to feed themselves on account of these bizarre movements. Such cases are not amenable to surgical treatment. They illustrate, however, one symptom complex of lesions of the corpus striatum.

Dr. Gaines (in closing): In regard to the question of Dr. Block, concerning Wilson's Disease, according to Ramsey Hunt, the



putamen and the cordate nucleus are histologically similar. The whole of the corpus striatum of identical histological structure is involved in so-called Wilson's Disease. In defense of the classification of lesions of the corpus striatum into various symptoms complex, the histological conception as brought out in the paper offers an explanation of certain symptoms and therefore affords a certain degree of satisfaction in studying various cases of corpus striatum involvement.

The resignation of Dr. W. W. Young, secretary, was now read. Dr. Young has accepted the position of Assistant Physician of the Massillon State Hospital, Massillon, Ohio. His resignation was accepted with regret. Dr. C. E. Dowman was then elected to fill the unexpired term of Dr. Young. A motion was made and carried authorizing the newly-elected secretary to secure the services of a stenographer to report the regular meetings of the Society.

The Society then adjourned.

CHAS. E. DOWMAN, Secretary.

#### **Dooly County Medical Society.**

Dooly County Medical Society reports following officers for 1922:

President—Dr. R. H. Pate, Unadilla, Ga.

Secretary-Treasurer—Dr. L. H. Bishop, Unadilla, Ga.

#### **Grady County Medical Society.**

Grady County Medical Society reports following officers for 1922:

President—Dr. J. B. Warnell, Cairo, Ga.

Vice-President—Dr. J. A. Lindsay, Cairo, Ga.

Secretary-Treasurer—Dr. J. E. Wright, Cairo, Ga.

#### **Sumter County Medical Society.**

Sumter County Medical Society reports following officers for 1922:

President—Dr. B. T. Wise, Plains, Ga.

Vice-President—Dr. F. L. Cato, Plains, Ga.

Secretary-Treasurer—Dr. J. C. Logan, Plains, Ga.

Board of Censors—Drs. Taylor & Lewis.

#### **Stephens County Medical Society.**

Stephens County Medical Society reports following officers for 1922:

President—Dr. E. F. Chaffin, Martin, Ga.

Vice-President—Dr. J. H. Verner, Jr., Toccoa, Ga.

Secretary-Treasurer—Dr. C. L. Ayers, Toccoa, Ga.

Delegates—Drs. C. L. Ayers and J. E. D. Isbell.

Board of Censors—Drs. Jeff Davis, A. Craig and W. H. Parker.

#### **Chattooga County Medical Society.**

Chattooga County Medical Society reports following officers for 1922:

President—Dr. M. N. Wood, Menlo, Ga.

Vice-President—Dr. F. W. Hall, Summerville, Ga.

Secretary-Treasurer—Dr. J. P. Webb, Summerville, Ga.

#### **Heard County Medical Society.**

Heard County Medical Society reports following officers for 1922:

President—Dr. J. W. Daniel, Franklin, Ga.

Vice-President—Dr. A. G. Wortham, Franklin, Ga.

Secretary-Treasurer—Dr. Frank J. Amis, Jr., Franklin, Ga.

Delegates—Drs. J. C. Taylor and Frank J. Amis, Jr.

Board of Censors—Drs. T. L. Vineyard, A. G. Wortham and P. L. Burgess.

#### **Twiggs County Medical Society.**

Twiggs County Medical Society reports following officers for 1922:

President—Dr. A. J. Wood, Fitzpatrick, Ga.

Vice-President—Dr. H. A. Rogers, Jeffersonville, Ga.

Secretary-Treasurer—Dr. S. W. Ray, Jeffersonville, Ga.

Delegates—Drs. S. W. Ray and H. A. Rogers.

Board of Censors—Drs. J. G. Slappey, A. J. Wood and H. A. Rogers.

**Lamar County Medical Society.**

Lamar County Medical Society reports following officers for 1922:

President—Dr. J. A. Corry, Barnesville, Ga.

Vice-President—Dr. D. W. Pritchett, Barnesville, Ga.

Secretary-Treasurer—Dr. J. M. Anderson, Barnesville, Ga.

Delegate—Dr. J. M. Rogers.

Board of Censors—Drs. C. E. Suggs, C. H. Willis and J. M. Rogers.

**Jackson County Medical Society.**

Jackson County Medical Society reports following officers for 1922:

President—Dr. J. B. Pendergrass, Jefferson, Ga.

Vice-President, Dr. F. M. Hubbard, Commerce, Ga.

Secretary-Treasurer—Dr. J. C. Bennett, Jefferson, Ga.

Delegate—Dr. W. C. Kennedy.

Board of Censors—Drs. L. C. Allen, J. H. Campbell and O. E. Shankle.

**NEWS ITEMS.**

Dr. Dunbar Roy, of Atlanta, has recently been elected president of the American Laryngological, Rhinological and Otolological Society, the membership of which consists of Ear, Nose and Throat specialists from the United States and Canada, and is the largest society of its kind now in existence. Dr. Roy is the second southern man ever elected to the presidency of this important organization. The entire medical profession of the southern states feels gratified that so high an honor has been paid to one of their members.

**ANNOUNCEMENTS.**

Dr. W. Pope Baker left June 1st for Harvard Medical School to do postgraduate work.

Drs. Bunce and Landham announce the removal of their laboratories and offices to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. Lewis M. Gaines announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. F. M. Sutton announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. Marion C. Pruitt announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta, Ga.

Dr. O. H. Matthews announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. Emmett Ward announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta, Ga.

Dr. J. D. Cromer announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

This is to announce removal of the offices of the Medical Association of Georgia and of The Journal, from 820 Healey Bldg., to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. L. C. Rouglin announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

Chattahoochee Valley Medical Society will hold its annual meeting the second Tuesday and Wednesday in July at Warm Springs, Ga. A big time is expected. All doctors, doctors' wives, families and sweethearts are cordially invited.

Eleventh District Medical Society will hold its next semi-annual meeting at Douglas, June 20th, 1922. President, Dr. F. Bird, Valdosta; Secretary, Dr. J. F. Mixson.

Dr. W. Troy Bivings announces the removal of his office, June 1st, to Suite 208, Exchange Bldg., corner Edgewood avenue, Ivy and Gilmer streets.



Dr. C. M. Mashburn announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. W. F. Wells announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta, Ga.

Dr. J. B. White announces the removal of his office to Professional Bldg., 65 Forrest Ave., Atlanta.

Dr. Leon E. Brawner, Cairo, Ga., left May 1st to enter Harvard Medical School where he will have a year and a half of postgraduate work in Eye, Ear, Nose and Throat.

Dr. J. Calvin Weaver, Chief Surgeon, 1911-1922, Government Hospital, United States Penitentiary, announces his resignation to devote his entire time to general surgery, Candler Bldg., Atlanta.

### SEVENTY-THIRD ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF GEORGIA.

Columbus, Ga.

Meeting of Secretaries—Tuesday, May 2,  
9 P. M.

The Secretaries of the County and District Societies met at the Ralston Hotel at 9 P. M. A motion to form a permanent organization was carried, and it was decided to call it "The Association of Secretaries of the Medical Association of Georgia." The following officers were elected:

Chairman, Dr. T. H. Smith; Vice-Chairman, Dr. Pratt Cheek; Secretary, Dr. H. L. Barker.

Subject proposed for discussion: Medical Organization—The Scope and Limitations of the Medical Association of Georgia.

Dr. E. C. Thrash: In looking over the personnel of the Secretaries here this evening I find that very few of the men are here who agreed to be here. If I were going to name the most important thing connected with the Medical Association of Georgia I would say that it would be living

up to your obligations and to your promises. In living up to your obligations you should co-operate absolutely with your councilors, and when your councilors fail to do their duty you should call them to time.

You have done excellent work this year, we know, from the fact that we have a larger membership than ever before in the history of the Association. But if you had been here this evening and heard the report of the secretary to the Council you would have felt that we are still far from doing our full duty. Numbers of counties have not been heard from at all. The reason is that every fellow is rather inclined to do the thing that he thinks is best for himself. Now, the reason why men are not interested in the Medical Association of Georgia is because they are thoughtless, indifferent, or lazy. When a man reasons it out that it is not to his interest to be a member of the State Association it is the duty of the councilor and secretary to show him wherein he is wrong. I am going to show you wherein he is wrong so that you will be able to present it to him. All that I know that is worth while (which is not very much, but I am going to keep on struggling), has been due to associations with my fellow doctors. Show me the man who does not mingle with his fellow doctors and I will show you the man who is not doing his duty to his patients. He is not doing his duty to his patients unless he uses every possible thing he can learn—unless he knows what other doctors are doing. I tell my associates who are not interested in medical work this, "If they can not tell you something, you can tell them something." We should certainly intercommunicate with our brothers for these two reasons: one, if we do not know, to learn of them; two, if we do know, to teach them. We are falling short of our duty to ourselves, our patients, our fellow practitioners, to society, to everything if we do not get the benefit of what the other fellow has and give him what we have.

A doctor may say, "I can go to the

medical centers and learn." Well, if he goes to the medical centers and learns, let him come back and tell the other fellow who has not the money to go and show him how he can improve upon his work. Every man who is practicing medicine should meet with at least some of his confreres once every month in the year and find out what they are doing. As a rule, the men we dislike the most are those we know the least about. My experience has been that the better I know doctors, the more I like them. If you think, you will recall that this is true, that the men that you meet with in your respective organizations year after year are the men whom you would treat with the utmost courtesy when friction arises—and friction will arise between doctors. So if you do not get knowledge you will be repaid because you will feel that you have the love and respect of your fellow doctors. Of all the people I know I have not ten close friends outside of the medical profession. Every close friend I have, whom I love as I do a brother, is a doctor. That is because we have many things in common, and I have cultivated it and have lived that life until I do not care for a man as a close personal friend unless he is a doctor, because we have nothing in common.

We are gathering here for the purpose of strengthening and binding the ties between us and to make an organization where we can all know each other and be intimately associated with each other and have every man that is worth while with us. There is no reason why we should not have one hundred per cent membership in the Medical Association of Georgia. There are numbers of counties in which we have one hundred per cent. There is not much difference in people—we are all about alike. When one county has one hundred per cent membership and another has no members, there is some dereliction in that latter county. What we want to do is to learn from these men, Dr. Elrod, for instance, one of the best organizers in the State. He has worked in his district just as he has worked for his living

in practicing medicine, and he has been rewarded. When I think of him I think of one of the most altruistic men I have ever known, who has worked with patience, with devotion, and with energy, and he has won. Dr. Harvard is another man who has worked and who has our love. We want to get a bond of union so that we shall feel that way to every man. We want to see them here every year. I promise you that as long as I live and can creep to this Association, unless some of my family are seriously ill, I am coming to these meetings.

Dr. J. O. Elrod: I do not know of any special reason why Dr. Thrash thinks I have been such an organizer, except that I have put my whole strength into organizing my district since I have been councilor. When I assumed office there were only four counties organized. At present every county is organized.

There is no reason why every doctor in a county who is eligible should not be a member of his county society, but there is every reason why he should be. It has been uphill work to organize my district, and I think it is for every councilor. Why? The reason is the lack of interest on the part of the men and the fact that their attention has not been called to the reasons why they should take an interest. Someone should tell them why they should come. The very reason we are here is to figure out why they will not come and to correct that reason.

At the present time every county in my district is organized, and there are only twenty-five men in the district this year who are not members of the society, but I tell you it has taken work. The greatest trouble I have had has been the lack of co-operation of the secretaries. It is the hardest thing in the world to get a secretary to answer a letter. There are counties in my district now from which I have not heard at all, and I wrote not only to the secretary, but to each doctor, and not once but half a dozen times. Every man should feel that he is a member of the Medical Association of Georgia and should



do some work for it. I think I have written something like a hundred letters this year, 1922. I know every doctor in the Sixth District. I get from the tax collector in every county the name of every doctor who has paid professional tax in the county. When a secretary does not report the name of any man who has paid the tax I write immediately to know why he was not reported. I have a list of all the doctors who have paid the tax, and opposite the name of each I state whether or not he is eligible. It is very necessary that the State Association have as nearly as possible one hundred per cent membership of the physicians in the State. During the last two years we have had \$315,000 in damage suits brought against members of the Medical Association of Georgia, all of which have been defended by the Committee on Medical Defense. Nearly all of them have been settled out of court. It takes a lot of work to keep these cases down. Possibly some damage suits arise from the very fact that doctors are not so particular what they say about a brother doctor, and that very often is because they do not know him. If they know him probably very often they would not say anything derogatory about his work. But to continue this medical defense feature we must have one hundred per cent membership. There might be men whom we thought eligible, but who are not eligible after investigating them. We should not try to get every man who is practicing medicine, but first find out whether he is eligible. We have had eighteen suits in the past two years, and those suits nearly all cost around \$100 or more. I might mention that we have attorneys hired for medical defense and we pay them \$1,000 a year to look after this matter and their expenses when they have to go to counties where we have suits.

It has been a great pleasure to me to be on the Council six years. I am glad to say that we have a most efficient secretary of the State Association, who is always glad to give you any information you may want. All you have to do is to

write him. I want to plead with you secretaries to try to get members for the Medical Association of Georgia and to look after it as you do your own business and reply to the letters of your councilor when he writes you. There is no councilor but who will sit down and write to delinquent members for you.

There is one point in regard to the medical defense feature that perhaps you do not realize and that is if your dues are not in the hands of the State Secretary by February 1st (changed to April 1st this year) of each year you do not receive the benefits of the medical defense feature until the dues are paid. Sometimes the secretaries will collect the dues and keep them for possibly a month or two before they report them. It is important to pay the dues promptly. Damage suits are a great deal more prevalent now than ever before. From 1916, to April, 1920, there were only about three suits. Since that time there have been eighteen suits for about \$300,000. That is an enormous figure and it shows that men in times like this will grab at anything, even their best friend, their family physician. Now, this feature is worth more to you than any insurance you can buy, because when a man sues you and finds that every doctor in Georgia is going to stand by you, he will quickly drop the matter. To keep this going we must have as nearly as possible a one hundred per cent membership of eligible men. It is in the hands of the secretaries and councilors to get the members, and unless they do it this end can not be achieved.

Dr. C. J. Maloy, Telfair County: I have been secretary of our Society for about three years now. When I first took hold we had about nine members belonging to the State Association, and now we have fourteen. There are twenty-three doctors in the county, and I have tried to get them all in. We are in the boll weevil section and some of them think they haven't the money to spend. But we shall try to make every year a better year. Practically every man in the county is a mem-

ber of the County Society, but some do not belong to the State Association, but I think by another year we shall have at least twenty. The others are old, and some have retired.

Dr. W. E. Mixon, Ware County: We have been working very hard this year to get up interest in our Society, and have tried to get some man from outside the county each time to read a paper. We have a little banquet at each meeting and so far have had pretty good meetings. We try to write each doctor in the county and send a program a few days before the meeting. I think there are only two men in the county who are not members who are eligible, and one of those told me this morning that he had received his card.

Dr. T. J. Busey, Campbell County: We have a very small number of physicians in our county, only about ten, I believe. Two are not members at present. One has been a member, but is delinquent in paying his dues.

Dr. J. L. Byron, Butts County: We organized about 1906. There are about ten or eleven doctors in the county, only six of whom belong to the Society. There are three or more who are eligible, but they dropped out, one for lack of interest and the other two for lack of money, so they say. I have been secretary of the Society only this year. We generally meet nearly every month and have very good meetings. We discuss cases and have small clinics, and it is very helpful to me and I think to every doctor.

Dr. W. E. McCurry, Hart County: In the absence of the secretary, I will report for my county. We have eleven white practitioners in the county and we have eleven members. It is a one hundred per cent county.

Dr. M. M. McCord, Floyd County: We have about thirty-five physicians in Floyd county, thirty of whom are eligible, and twenty-eight are members. The other two have promised to become members within the next few days. At the last meeting we had twenty-eight members present.

There is no friction in my county, but all are in peace and harmony with each other. The doctor who is narrow in his views is the doctor who never shows his face at a medical meeting of any kind. The physician who is regular in attendance is broad in his views and charitable toward his brother practitioner.

I will agree that the secretary has to be the whole show in the County Society. He has to be the program committee, the membership committee, the boosting committee, and everything else. Therefore you must have a secretary who is wrapped up in enthusiasm or else you will have a dead society. I am a new appointee as councilor in the Seventh District and have not had an opportunity to do anything yet. However, I shall try to put into operation some of the principles which Dr. Elrod has given us. I find that about two or three counties of the fourteen in my district meet regularly. The rest of them just get a few together and decide who shall be president and secretary, so that they can report to the State Secretary. When they do that they lose interest, and think they get nothing in return for their dues. It is the councilor's job to show them that even if they never meet to carry out a scientific program they have certain advantages in being members of the State Society, because medical organization means more now than ever before. It means more to us as physicians, and it means more from the layman's standpoint.

We are coming along beautifully in Floyd, and we hope to have one hundred per cent membership next year.

Dr. H. D. Allen, Baldwin County: The majority of our people are either physicians or inmates. We have eighteen physicians, fifteen of whom are members. This year we decided to have a supper every month, and have been having a little enthusiasm at our meetings. Every man in the county with the exception of the two colored physicians has been a member of the Society at one time or another. We have about six delinquents now. I think



that really the best thing we have hit upon is the knife and fork feature, and we can do that very well by going to the hotel at the regular supper time. After supper we have a little discussion. I think that in time, when the general financial depression has lifted a little, we shall again have a one hundred per cent membership in Baldwin County, and we shall have better meetings than we have ever had before, if we are not already doing that.

Dr. R. L. Carter, Upson County: We have had an intermittent society in Upson County for a good many years. It is a small county with only one large town. During the past year a few of us got together and decided to have regular monthly meetings with a pre-arranged program. After that the men began to come regularly. We have a banquet twice a year and a meeting every month. Every man in our county who is eligible is now a member in good standing.

Dr. J. H. Hammond, Walker County: I have been the secretary for the past thirty-five years. My county has been pretty well organized. We have one man in the county who is eligible, I think, but is not suitable material, so we have not solicited him for membership. With that exception during most of the years since the reorganization my county has been pretty completely organized. At this time we have three men who live right on the State line. I have talked with them recently and one told me that he is a member of the State Association, but I haven't him on my county list. One of the others is a member of the Tennessee Association. Sometimes we have them, and sometimes they join the Tennessee Society. There are one or two old men who are not practicing, and also one young man, who are not members. With these exceptions my county is in good standing. We have fifteen or sixteen members paid up.

To have regular meetings, of course, is the proper thing. They are beneficial, but we have succeeded in holding our County Society together without them. We have

been talking about the advantages of organization outside of meetings, the advances of medical education, and so forth, and have had very little trouble in collecting the dues. But it depends upon the secretary.

Dr. Pratt Cheek, Hall County: My story is a little sad. Three or four doctors in our county have starved to death in the last three or four years on account of the chiropractors. Until the chiropractors came, they were doing pretty well. There are fifteen active practitioners in Hall County. We have a good meeting nearly every month, and generally have something to eat. Our meetings are looked forward to with a great deal of pleasure. We usually have an attendance of fifteen at the meetings.

Dr. Grady Clay, Fulton County: I believe if we had more councilors such as Dr. Elrod, we secretaries could probably report one hundred per cent. In Fulton County we meet twice a month, and our attendance, for the last two or three years especially, has been very good. I think that it is due entirely to the fact that the programs have been made very interesting, and I believe the most interesting part of the programs, to the men in Atlanta especially, is the case reports. We spend from eight to nine o'clock in case reports and presentation of specimens, and from nine to ten o'clock with papers and new business. The business part of our meetings has been eliminated entirely by what we call the Board of Trustees. The Board of Trustees transacts all of the business, and I think this arrangement has helped our Society immensely.

During the past year our Society has purchased a home priced at \$25,000. We have made the first payment and shall take possession on July 1st. We shall have a library, committee rooms, etc., and shall hold our meetings there. We have at present 325 paid-up members, and about 385 on the roll. If a man does not pay up by April 1st, he is suspended, and if he does not pay up within the year he is fired.

This year we have fired fifteen men and have taken on thirteen new men.

Dr. M. M. Head, Pike County: Our county is a one hundred per cent county. We usually have a reasonable and moderate scientific program, and have it every time.

The trouble now with medical societies is that we have not the ethical men. We have not men who will stand up for what is right. There are many men who are not ethical and not deserving of respect from a real doctor, and yet we hold consultations with them. When we stop that we shall get better results. We should stand up for what is medicine, and then we shall have an Association that will count for something.

Dr. E. S. Peacock, Washington County: I am not a secretary, but with your permission I wish to voice my approval of what has been said by all of the secretaries, and to endorse heartily what Dr. Thrash and Dr. Elrod have said. In my county we meet once a month, and every second month we have a banquet. That was first started by the president, who footed the bill. That went along for about a year. After that we taxed each member for his plate. We have twenty-five eligible physicians, and we have twenty-five members.

Dr. W. P. Jordan, Muscogee County: We have 42 members and two honorary members out of 52 eligible men. How we can get in the others I do not know, for we have tried every way we can think of. In the last three years the enthusiasm of the local Society has increased considerably. The members seem to enjoy it, and the attendance is increasing with each meeting. At least four times a year we have a banquet, to which we invite all doctors within a radius of thirty-five or forty miles. We can finance that because our county dues are \$5.00.

Dr. J. H. Nicholson, Morgan County: We have fifteen doctors, and last year we had one hundred per cent membership. At present we have nine paid-up members, and six have not paid. Some wanted to

pay the county dues but not the state dues, and we would not agree to that. I have hopes of getting three or four of them back, but do not think I can get all.

Dr. A. W. Wood, Daugherty County: Dr. Y. C. Lott, our secretary, could not come and asked me to report for him. Our organization is complete with the exception of one man who would not pay his dues this time. Last year I paid his dues for him and never collected the money. We have called meetings occasionally, and five or six of the young men meet, but there are several of the older men who think it is a condescension to meet with them, so we are practically dead so far as the County Society is concerned.

The Second District Society has been coming along very nicely during the last two years. We have had good meetings, with prospects of further progress.

Dr. S. L. Cheshire, Thomas County: We have 26 paid-up members, and there are two doctors who will not join. Our men have been in the habit of paying their dues about the first of April, and I can not get them out of that habit. They will not pay before that time. We meet every three months; at Thomasville in December, holding the other meetings in the other towns. The doctors of the different towns entertain the Society. We get up a regular program, and we have some of the best papers I ever heard. We have an average attendance of 23 or 24 out of the 26 members. It takes quite a bit of work on the part of the secretary to get them there, but they go. We have good feeds, have a good time and good meetings. We have, I believe, the best bunch of doctors I ever saw. There is not a bit of friction among them, and they work together and work for each other. Not a man but will help another when he needs help, and give the best he has.

Dr. W. R. McCall, Troup County: We have had a most excellent Society in Troup, both this year and last. Dr. Callaway, our secretary, is a most efficient one. There are 28 doctors in the county, and we have 26 members. There are two doc-



tors who have in times past belonged to the Society, but we have not tried to get them in the last two years. Two of our members are Alabama men. We have been having regular meetings, on the last Thursday of the month, and have had splendid programs. We find that the little suppers we have are very attractive. All the meetings are held in LaGrange, and the doctors from the other towns seem to enjoy coming there, and they help to pay for the banquets. We have very good papers and good discussions. We are proud of Troup County, and we consider it one hundred per cent.

Dr. Z. V. Johnson, Gordon County: I am ashamed of my county. We have nineteen men and about seven members, and I think only two of the men are not eligible. We have tried banquets and persuasion and various other things, but have not been able to interest the men outside of Calhoun. Gordon County is a good field for the councilor to work, I think. Some of the men in the county are eighteen or twenty miles away from a town, and several of them are men of advanced years, and they take no interest in progressive medicine or in organization. But I am going home with renewed energy, and will do my best.

Dr. H. L. Barker, Carroll County: Last year our secretary stole all our money. The whole county was dropped from the mailing list of The Journal, and not until the last of the year did we get straight. There are in the county somewhere between 35 and 40 doctors, including the retired, the colored, and the quacks. We have only eleven members. This year our secretary changed his plans and moved away, and I was elected to succeed him, and have not been able to do anything yet. I am planning personally to have a barbecue at our meeting this month. There is at present quite a little friction. I think the cause is that most of us are at present hard run for a living, and we are all anxious to get a patient who has a little money. We had at one time a 95 per cent county, but a few years ago a quack named

Lewis came in and tore everything to pieces; then the secretary stole the money, papers, desk and everything; then the officers moved away; but we shall bring them all in yet.

Dr. T. H. Smith, Lowndes County: We have in Lowndes County 22 men who are eligible, and 20 are paid up members this year. We meet once a month, at the homes of different members. One trouble in getting the men together is getting a program that is interesting. We have undertaken to report all deaths and make a diagnosis of those cases and discuss them.

If Dr. Thrash or Dr. Bunce have any further suggestions that will help us, we shall be glad to hear from them.

Dr. Thrash: The only suggestion I would make is that the Secretary might write a letter to every other secretary in the State and get a list of the counties that have not an organization and find some means of getting in touch with them and getting organized in those counties. Your organization must now get to work or disorganize. Your purpose is to make every doctor in Georgia who is eligible a member of the organization. This movement is to take care of not only your own county, but also your brother's society. I think it will be a fine thing to write to the absent secretaries, tell them what a good time we have had and how much they have missed, and that we want them to be with us next year. If you are adjacent to a county that has not lined up, get them to come over and line up with your Society. Every doctor has an automobile, and the roads are getting good. A distance of fifteen or twenty miles is nothing, and there is no reason why the outlying counties should not line up with the counties that are organized.

Dr. Bunce: I think that this meeting has proved a distinct success. This idea is not original with us. Other Southern States have this same organization. I think that we have made a distinct step forward. We shall be glad to publish these proceedings in the Journal of the organization. I hope that this organiza-

tion will be permanent and that each year on the Tuesday night before the meeting of the Association there will be a meeting of Secretaries, at which meeting we can discuss the problems peculiar to the county societies. They are the backbone of the State and National Organizations.

Dr. Elrod: I want to ask Dr. Bunce to tell us if the Secretary of this organization writes to all of the secretaries, who will supply the postage and stationery. I do not believe it is up to him to donate that much.

Dr. Bunce: The State Association will write all the letters and send them out.

Dr. H. D. Allen asked if it would be possible for men to belong to the county societies but not to the State Association, and also asked if anyone except members of the county societies could subscribe to the Journal.

Dr. Bunce: Anybody can subscribe to the Journal at the price of \$3.00 a year, be he doctor or layman. According to our present Constitution and By-Laws, a man cannot be a member of a county society unless he belongs to the State Association.

Adjourned.

Wednesday, May 3, 1922, 9 A. M.

The seventy-third annual meeting of the Medical Association of Georgia was called to order by Dr. J. M. Anderson, president of Muscogee County Medical Society.

#### Invocation.

Dr. John O. Davidson, Pastor First Baptist Church, Columbus: Our Heavenly Father, we are grateful to Thee for the progress of science in the world, particularly medical science, and for the alleviation of human suffering that has resulted, for the prevention of human disease that has grown out of the study of these men consecrated to the development and expression of truth and light. Wilt Thou guide their deliberations, and out of this Convention grant that developments may come which will result in the greater relief of human suffering in the State of Georgia, in the South, and in the world. May these men realize that every one of them

is called individually of God to serve humanity. We ask this in Christ's name. Amen.

Dr. J. M. Anderson: About a year and a half ago, in the city of Atlanta, there was a very sick lady. She had a very peculiar disease. The doctors were rather puzzled, and they called in this group and that group and that big doctor and the other big doctor. Finally they decided that she probably had sleeping sickness, and they decided to call in Dr. Thrash, which they did. After three visits he presented his bill, and she opened her eyes. Dr. Thrash having succeeded so well in that case, we decided a year ago that he would make a good president for the Medical Association of Georgia and would wake it up. That he has succeeded beyond our fondest hopes there is no doubt. I now present to you Dr. E. C. Thrash, president of the Medical Association of Georgia.

#### Address of Welcome.

Hon. Homer Dimon, Mayor, Columbus: I would like to be able this morning to deliver to you an address full of inspiration, full of wit and full of humor—such as you might expect from a speaker of reputation. But claiming as I do no qualifications for the platform, I simply speak to you a word of welcome from the heart.

It is absolutely necessary that we have conventions to discuss the problems common to us all. We find that in every profession, in every industry, we have conventions—in everything, I believe, except fishermen. I have never heard of a fishermen's convention, but no doubt we shall have one some day. Possibly, though, fishermen have some secrets which they may desire to keep from one another, but I am sure in every profession now we have no secrets. If we have anything good, we want the other fellow to know it, and the convention is the place to talk about it.

Service is the beacon light of duty that shines out along the pathway of men, constantly warning us of the danger of selfishness and inspiring us to a life of service. "He profits most who serves best."



I have considered a teacher, a leader, the greatest person in all the world. What would the world be, what would America be, without our great teachers, our great leaders in education, in medicine, in science, in surgery and other arts? There has been a most marvelous progress in sanitation and in the science of medicine and surgery during the past few years. In this progress you are most deeply concerned. I am glad you have such a well-planned program of splendid subjects for your study and consideration at this convention.

I often think of the tender relation we bear to the family physician. What a warm and responsive place he occupies in our hearts. He is trusted as no other person. We honor and love him, just as though he were the closest kin. I argue then that a doctor should be the best and cleanest person in all the world. "There is nothing great on earth but Man and nothing in Man but Mind—As a man thinketh in his heart, so is he." Then again, I sometimes wonder if we love him as we should. He has been so patient, so tender, so self-sacrificing, always willing to respond and render his best service and too often without the slightest remuneration.

Our chairman stated just now that Dr. Thrash has a new recipe for opening the eyes of the blind. I read this story a few days ago of a bill presented by a locksmith for \$100 for services rendered. The bill was returned to be itemized. It came back as follows: \$5.00 for opening the vault; \$95 for knowing how. That may be why you doctors now send out your bills "for services rendered." If we should send one back to be itemized, you might say "\$2.50 for services rendered; \$25 for x-ray; \$95 for knowing how."

All optimists and students of history tell us that we are living today in the best era of the history of the world; that the most wonderful period of prosperity the world has ever seen is just ahead of us, just around the corner. The call is made that we go out and meet it. Come on, let's go. As America leads the world in a great for-

ward and progressive movement toward higher attainments in research, art, literature, music, education, science, medicine and surgery and all things else, and last, but not least, in the accumulation of wealth—for without money we cannot build great institutions and provide the necessary equipment that are essential to progress. So the United States leads in the eastern hemisphere and the South leads in the United States. For proof, get a copy of the Blue Book of Southern Progress: The South—Yesterday, Today and Tomorrow, published by the Manufacturers Record. Study this. If statistics prove tiresome, you can relieve the monotony by reading "Speaking of Operations," by Irvin S. Cobb. (Date, Nov. 6th, 1915.)

I am proud to state that Georgia, the great empire state of the South, is not lagging behind in the path of the world's progress. She can boast of institutions, schools, colleges and universities, some of which are destined to be the finest in the world. Among those which stand out most distinctively is Emory University. We love our State and are proud of our institutions, our cities, our industries, our people. We are proud of the men and women who have been the prime factors in the building of this great commonwealth.

You have come to Columbus, the most beautiful city in all this section. Columbus is not the city it was 40, 20 or even 10 years ago—but a new Columbus, and if we had another hotel or two, we could easily become the convention city of Georgia. We could tell you of our new industries, new homes, new enterprises, new schools, new hospital, and last, but not least, we can tell you of many illustrious men and women whose life work has been Co-operative Service. Our people are home-loving and hospitable. We welcome you here. We offer you the very best that we have. May this convention be most helpful to each and every one in attendance.

I heard a little story some days ago about a man who went to consult a certain celebrated doctor. He asked, "Doctor, do

you think whiskey is harmful?" Said the doctor, "I do." "Do you think that smoking is harmful?" "Yes, I do," said the doctor. "Well, Doctor, do you smoke?" "Yes, I must confess that I do," replied the doctor. Now, possibly some of you may be like that doctor, and while you may tell your patients that smoking is hurtful, if you yourselves smoke we want you to have the best cigars there are, so we ask you to help yourselves to these.

#### **Address of Welcome on Behalf of the Muscogee County Medical Society.**

Dr. P. A. Tatum: I have a friend in this city who has usually delivered the welcoming address to our guests for the past twenty-five years. As a rule he begins somewhat like this: "When guests come to our city they find open gates, open doors, open pantries, open hands, open arms, and open hearts—and, if need be, open purses." Then he adds these words: "But it falls to my lot to extend to you the hospitality of an open mouth, which I am now doing." I myself could use no more appropriate words than these. There are twenty-three cities in the United States named Columbus, but this city is a city of hospitality. The truth is that she is pregnant with hospitality and she will deliver herself on this occasion. And, if she does not, you are at perfect liberty to perform an abortion.

This is the city where Samuel Spencer, late president of the Southern Railroad was born; where George Foster Peabody, the Philanthropist, was born; where Augusta Evans Wilson was born; where Dr. Francis Orrery Ticknor, who wrote "Little Giffen of Tennessee," was born; where the three great Hebrews, Oscar, Nathan and Isador Straus, lived as boys; where the ice machine was invented and the first one made; where the greatest military institution in the entire world exists. This is the place where physicians and surgeons have enough ability to minister unto patients of debility, and I trust on this occasion they will show enough amiability and affability to entertain you as such distinguished guests should be entertained

Columbus has the life of an Atlanta, the stability of a Rome, the beauty of a Savannah. I therefore welcome you to this, the Queen City of the Chattahoochee.

President: Whatever we may do to Columbus, I will state that our orator who has just delivered himself needs neither a parturient nor an accoucheur.

#### **Response to Address of Welcome.**

Dr. Walter B. Emery, Atlanta: Mr. President, gentlemen of the State Medical Association (I put them always first), gentlemen of the Muscogee County Medical Society, your Honor, the Mayor of the City of Columbus, ladies and gentlemen:

It is with a feeling of the keenest pleasure that I rise to respond to the magnificent welcome accorded us on this occasion. When I stepped from the train last evening I felt the air, the very atmosphere about me, permeated and charged with a spirit of welcome. A little later, when I shook the hand of my dear friend Tatum, the wonderful Anderson, the distinguished Munroe, and others, I felt my heart swell with pride that I should be a member of such an organization, and I became conscious of a feeling of appreciation and gladness inspired by their hearty greeting. Later in the evening, after certain consultations behind closed doors, the nature of which it is not necessary to divulge at this time, I became conscious of the fact that there was circulating in my veins the very spirit of Columbus, or at least of Muscogee County.

Mr. Mayor, you should indeed be proud to be at the head of so interesting, so fascinating, so enchanting a community. Columbus, Columbus, thou fair city of our Southland, situated as you are, near the banks of our own Chattahoochee, with your interesting buildings, your great manufactures, your beautiful streets, your winding roads and incomparable highways, your magnificent parks and trees and flowers, and last, but not least, your beautiful women, today we crown thee a city among cities, the fairest among the fair.

To you gentlemen, members of the Muscogee County Medical Society, I want to



say that I am sure I voice the sentiments of every member of the State Medical Association when I say that we are glad to be in Columbus today. We appreciate beyond expression your invitation and your royal hospitality—hospitality exhibited not only at this time, but in the past. And just here let me make a detour, as we autoists say, for one moment. You do not deserve any particular credit for this hospitality that you exhibit. It was bred in the bone, it is part of you. You have your grandfather and your great-grandfather to thank for it. It is natural to you. And at the time when our State Medical Association was racked with petty politics and factionalism, Muscogee came to the front and showed us what hospitality could do. It has been a great factor in upbuilding our State Association. Follow me closely one moment. Hospitality, as exhibited by the Muscogee Medical Society, produces good fellowship; good fellowship produces confidence; confidence produces good-will; good-will, good works, good fruit, good results. And just here, my friends, I want to say that I believe Muscogee County, in exhibiting this hospitality in the past as she is exhibiting it now and will for the next day or two, cements together the State Medical Profession, and its works are felt throughout the State.

To you gentlemen of the State Association, I do not believe that it will be amiss to say just a word. I would that I had the tongue of an archangel, or the forensic powers of our distinguished President, that I might offer you some little word of encouragement at this time. You have had a hard year. Many of you have suffered with what I call pecuniary anemia. Many of you have watched that little bank account which you have saved for a rainy day or for old age swept away by the pestilence which has visited our rural districts. Have you been cowards? No! Many of you have made calls without collecting enough money to pay for the gasoline you burned. Many of you have been unable to keep up overhead expenses. This is not entirely confined to the rural dis-

tricts and the small towns. In the cities I find—and I find without investigation—that the same condition exists. The only difference is that we have a little propaganda to keep a stiff upper lip and not to talk and tell our troubles. That is the only difference. Some of you have had your blue moments. You have wondered if it wouldn't have been better for you to have taken up some other profession. But I am glad to say that there is not a physician with whom I am personally acquainted to whom such a feeling as that comes except as a transient thought. They are not cowards. There may be times when they appear to be cowards, for there are certain limits to human endurance.

A professor of Emory College was wont to make dramatic and laconic remarks. One morning he walked into the classroom, stood before us, and in his Chesterfieldian way, said, "Gentlemen, God thought of beauty, and woman breathed. The class is dismissed." He had given us food for thought. I say to you today that God thought of the grandest, the greatest, the most unselfish profession that could be thought of, and the medical profession came into existence. And when the last moments of earth come, ere our spirit has winged its flight to the unknown world, let us stop before we pass over the river and thank God that we have been allowed the privilege of being members of this profession.

(Proceedings to be continued in next Journal.)

### COMMUNICATIONS.

Dr. A. H. Bunce,  
Editor, Journal Medical Association of  
Georgia.

Dear doctor:

I have just finished reading an article in the current number of the journal. This is an excellent paper except in one very important detail. I counted some thirty mistakes in the spelling and in the use of capital letters and hyphens. I am sure that it would be an excellent idea for every author who dictates his paper to a stenographer to consult his medical dictionary and carefully read over the article before

submitting it to the editor for publication and for the editor not to allow the printer's copy to go to press without the necessary corrections.

With high esteem and regards,

Very truly yours,

JOHN HUNNICUTT.

### BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

### THE SURGICAL CLINICS OF NORTH AMERICA.

(The Philadelphia Number)

The Surgical Clinics of North America (issued serially, one number every other month). Volume II, Number I (The Philadelphia Number), 331 pages, with 145 illustrations. Per clinic year (February 1922 to December 1922). Paper, \$12.00 net; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

**Papers From the Mayo Foundation.**—Papers from the Mayo Foundation for Medical Education and Research and the Graduate School of Medicine of the University of Minnesota, covering the period of 1915-1920. Octavo volume of 695 pages with 203 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

**Infant Feeding.** By Clifford G. Grulee, M.D., L.L.D., Associate Professor and Acting Head Department of Pediatrics at Rush Medical College. Fourth Edition. Thoroughly Revised. Octavo of 397 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$4.50 net.

### New and Non-Official Remedies.

During April the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-Official Remedies:

Abbott Laboratories:

Izal.

Izal Disinfectant Powder.

Intra Products Co.:

Ven Sterile Solution Mercury Benzoate  
1 Cc.

Merrell-Soule Co.:

Powdered Protein Milk-Merrell-Soule.  
Parke, Davis & Co.:

Pertussis Vaccine.

Pneumococcus Vaccine (4 types).

Streptococcus Vaccine Polyvalent (Scarlatina).

Typhoid-Paratyphoid Vaccine (Prophylactic).

Seydel Manufacturing Co.:

Benzocaine-Seydel.

Winthrop Chemical Co.:

Iothion.

Iothion Oil.

Sabromin.

Sabromin Tablets, 8 grains.

Acriflavine-Heyl:

Proflavine-Heyl: These products are now marketed by the National Aneline & Chemical Co., and the Council has continued the acceptance for New and Non-Official Remedies under the new firm name.



## DEATHS.

## Death of Mrs. A. M. Dimmock.

We, the members of the Fulton County Medical Society, feel deeply the bereavement of our friend, Dr. A. M. Dimmock.

We know that on the eve of great happiness he lost all; a loss peculiarly severe, even for one of its kind; a loss that cannot be appreciated by those not knowing the home so suddenly broken by this untimely death.

We wish, in so far as words can suffice, to express our deep and sincere sympathy to Dr. Dimmock, and the sorrow that we feel in his great misfortune.

The Committee:

Trimble Johnson, Chairman,  
Arch Elkin,  
Cliff Brannen.

Dr. Henry F. Scott, born June 26th, 1853, died suddenly of heart trouble at his home, 1305 Peachtree Road, Atlanta, May 10, 1922.

## Doctor—

Have you an article in this month's issue? If so, you will want some reprints. You save the cost of composition by ordering from us, as we use the type that was printed in this journal.



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# THE JOURNAL

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No. 7

### ORIGINAL ARTICLES

#### ECZEMA PARASITICUM.

Jack W. Jones, M. D.  
Atlanta, Ga.

There have been many names ascribed to the clinical condition that we know as eczema parasiticum. According to the clinician consulted, the same condition will receive the name most in use in the particular locality in which the question happens to come up. Among the many names given to this particular clinical condition of which we are speaking, the following are some of the most common, viz: epidermophytosis, eczematoid ringworm, parasitic dermatitis, epidermophyton infection. However, as our knowledge of the exact etiology and our classification of the offending organisms is as yet unsatisfactory to say the least, the above title to my mind is the best at present, as it only assumes to define a clinical condition.

The history of this condition is a most interesting one. Most of the earlier writers in dermatology describe a condition which they speak of as eczema but differing from the usual type in its sharp definition and its response to anti-parasitic ointments. The mycoses were known even as far back as the time of Hebra and Kaposi, Hebra being the first to describe eczema marginatum. Hans Hebra, in 1881, described a parasitic eczematous eruption accompanied by weeping, crusts and chronicity. He treats it with Wilkinson's sulphur ointment, or pyrogallie acid and follows this with salicylic acid. Crocker definitely describes and names an eczema parasiticum, which coincides with what we know to be the eczematoid type of epidermophytosis. Although admitting that he

could not demonstrate the parasite he was able to clear up the condition with sulphur ointment.

Of later years the best classification of the different types of this organism has been given us by Sabouraud. There has been much work done and many efforts at classification since that time, but Sabouraud's classification still stands as the model to work from. Drs. White and Greenwood (J. A. M. A. Vol. 72-1297) have classified this condition clinically in six types, viz: (1) the macular or eczematoid type; (2) the vesicular or dysidrotic type; (3) the macerated type; (4) the hyperkeratotic type; (5) the papular or lichenoid type; (6) infection of the nails. This seems to me the most satisfactory clinical classification that has yet been brought forward, and one in which practically all the cases of parasitic eczema can be placed.

#### Diagnosis.

In this locality, due to its common occurrence, this is a very important question. It has been my experience that a very large percentage of the cases seen privately, as well as in the clinics, is due to one of the types of this infection. In considering an eczema in this locality it is imperative to keep in mind its very probable parasitic etiology, particularly if it is sharply defined. It is possible to make a clinical diagnosis of a majority of these cases after one has the clinical picture fixed in mind.

The macular type is found particularly in the groin, axillae, scrotum, etc., although it may occur on other parts of the body. The dysidrotic type is limited to the hands and feet, usually the palms, soles and lateral aspects of the fingers. The macerated type is found between the toes



and is probably the most common of the various types and the hardest to deal with. The hyperkeratotic type also is usually limited to the palms and soles. The papular or lichenoid type may be found on any part of the body but more frequently on the flat surfaces of the extremities and buttocks. Our real diagnostic point, of course, lies in the microscope and cultural examination.

In demonstrating the causative organism microscopically, I have found the following procedure the most uniformly successful: In obtaining material for examination, first scrape away the superficial scales and debris, then take the deeper scales to a clean glass slide and place on it a couple of drops of 15 per cent sodium hydrate. Cover with a cover glass and pass through the flame several times or allow to stand for an hour or so. The specimen is then ready for examination. After a little practice in adjusting the light one can pick out the organism with a 16 m. m. objective then examine with a 4 m. m. objective. In a large percentage of the cases, if one is willing to try several preparations, the organism can be demonstrated in this manner. If the case has received previous treatment, the chances of successful demonstration are lessened. If microscopical demonstration is impossible, then of course the only procedure remaining is the cultural.

### Treatment.

Everyone who has had experience in treating cases of parasitic eczema realizes the difficulties confronting one when this subject is approached. From the many treatments proposed it is clear to one that uniform success cannot be expected to follow any one line of treatment. Some cases seemingly very bad will respond readily and quickly to almost any line of treatment, while others mild in type are very resistant to treatment. This, I think, is due not so much to the type of infection, as to the individual resistance of the patient to infection. Some skins seemingly need very little help in overcoming the infection,

while others are totally unable to cope with it.

Constitutional treatment seems to have very little effect, although at times I have thought that an iron tonic was of benefit in patients whose general condition was poor from any cause. Of the many local applications, the following have received the more thorough trial: (a) Whitfield's ointment; (b) chrysarobin; (c) iodine; (d) mercury in some form; (e) sulphur; (f) formalin; (g) x-ray.

As for Whitfield's ointment, I have never been able to enthuse over this nor to obtain the results claimed for it by its proponents. It macerates the skin very badly. I have practically discarded it as far as this disease is concerned. Chrysarobin is open to the same objections here as elsewhere, viz: the staining and its production of a dermatitis, as well as the trouble experienced in keeping it away from the eyes. Formalin, although acting well in some cases, is also very irritating and is productive of a severe dermatitis at times. Sulphur, I have not found as good as the mercurials in its results. The three forms of treatment I have found to give the most uniform results are iodine, mercury and x-ray. Of these three, we find that one acts better in one type of the disease than another and vice versa. The same rule will apply here as well as elsewhere: "As long as improvement is noted be slow to change." In outlining treatment for the different types the following is suggested:

1. Macular or eczematoïd type: In this the mercurials are found to be the most useful. Salicylic acid along with ammoniated mercury ointment makes a very good preparation. I usually begin with salicylic acid 3 per cent, ammoniated mercury 5 per cent, in petroleum, gradually increasing to as high as 8 per cent salicylic acid and 15 per cent ammoniated mercury, being governed entirely by the reaction of the individual skin.

2. Vesicular or dysidrotic type: in this the x-ray is the best weapon we possess. Its action is hard to explain. In the

amounts given it cannot have very much anti-parasitic effect. The only explanation that appears logical to me is, that it so changes the tissues as to make the soil unfavorable for the growth of the organism. I usually begin with a one half suberythema unit (standardized by McKee and Remer) and follow each week with a quarter unit. The almost immediate results are at times amazing. In a majority of the cases a drying of the vesicles and a beginning of healing are noted at the second visit of the patient. If results are not forthcoming in four to six treatments, it is advisable to change to some other type of treatment.

3. The macerated type: this type is probably the hardest of all to treat with the exception of the nails. The x-ray seems to affect this type but very little. The best results are obtained generally with the salicylic ammoniated mercury treatment as outlined above.

4. Hyperkeratotic type: in this type I find the x-ray of some value but usually rely on iodine, the best solution of which I have found to be that used originally by Dr. E. Wood Ruggles: Phenol (gr. x), .65; iodine (dr. 1), 4; Spts. camphor (ad. oz. 1), 25. Use this as a paint several times daily. Sometimes it is of value to scrape away the horny layer occasionally with a dull curette. Although I have been using this solution for only a short time, I can speak very highly of it.

5. For the papular or lichenoid type the x-ray again assumes first place, although the salicylic acid and ammoniated mercury will at times give satisfactory results.

6. In infection of the nails we are sometimes hard put to know exactly what to do. In any case it is a long and tedious treatment. In some cases the x-ray works very nicely and is certainly worthy of a trial. In others, by softening the nails with liquor potassii, scraping, then applying the salicylic ammoniated mercury ointment, results may be obtained in three or four months, but this necessitates a nightly application.

In addition to the treatment as outlined above there are certain other measures that should be instituted. No soap or water should be applied to the part, as it invariably irritates. The clothing worn next to the part should be changed frequently and always boiled before wearing again. Bandage as little as possible. A pair of cotton gloves to the hands and white cotton stockings to the feet are very useful to keep the ointment on these parts. For the shoes, I usually give a calomel powder to be sprinkled in them as one would use shoe powder. Do not stop treatment when the disease clears up but continue for several weeks and gradually taper off. Purely as a precautionary measure after each case treated with the x-ray, when the disease has seemingly cleared up, I follow with a course of two or three weeks with the anti-parasitic ointment.

### Conclusion.

This paper is written simply as a possible aid in diagnosis and treatment of this very common condition, probably more common than any other skin condition in this locality. Only one suggestion as to prevention: An attempt at ridding the floors, the wearing apparel, etc., of this common organism, particularly at the public baths, in clubs, Y. M. C. A.'s, etc., where most of the cases of this condition are contracted.

916 Atlanta Trust Company Building.

### ACUTE MASTOIDITIS.\*

#### Its Causes, Symptoms, and Palliative Treatment.

M. H. Stuart, M. D.  
Moultrie, Ga.

Purpose. My purpose is to make this paper practical. The treatment herein-after given, if faithfully followed, will make it unnecessary to operate in many cases.

Definition. Mastoiditis is an inflammation of the mastoid portion of the temporal bone and is often accompanied by pus.

Causes. Since mastoiditis follows middle ear pathology and as practically all

\*Read before the Second District Medical Society at Tifton, Ga., February 10, 1922.



middle ear diseases have their origin in the naso-pharynx, the causes are in the main those of middle ear catarrh or infection; atmospheric influences; drenching of the body; cold and sea baths; naso-pharyngeal infections; acute rhinitis; scarlet and typhoid fever; measles; smallpox; influenza; erysipelas; pneumonia; bronchorrhea; chronic middle ear catarrh; ozena; naso-pharyngeal injections applied with force; snuffing of cold water; operations in the naso-pharynx; nasal tampons; galvanic cautery; various micro-organisms entering through the eustachian tube, the blood, the lymphatic system, and through perforations in the drum head; large spurs or deviations of the septum; hypertrophied turbinates, adenoids, and diseased tonsils.

**Pathology.** The pathological changes usually begin in the nasopharynx. As we know, under normal conditions there is an equal air pressure on the inside and outside of the tympanic membrane; but when the eustachian tube becomes inflamed and swollen and the lumen becomes occluded, shutting out the air, the air remaining in the tube is soon absorbed and a negative air pressure ensues, forcing the drum head inward. After a time, however, the tube becomes filled with a transudate which shortly fills the middle ear and causes the ear drum to bulge in whole or in part. This transudate, usually surcharged with a mixed infection, is now forced by pressure into the *additus ad antrum* into the antrum and thence into the mastoid cells.

### Symptoms.

Pain may be present or absent; persistent or intermittent; and is increased on pressure.

Tenderness is especially marked over the *fossa mastoidea*; the mastoid tip; the seat of the zygoma; and the posterior border of the mastoid.

Deafness varies according to the degree of occlusion of the eustachian tube and to the amount of pressure in the middle ear.

**Drum head.** The tympanum is bluish red or very red; the blood vessels en-

gorged; it is bulging in whole or in part; there is an absence of the light reflex and other landmarks; after perforation in the posterior superior quadrant; the drum-head may be covered with epithelium, cerumen, home remedies; or the canal may be full of pus, which, if pulsating, is evidence of purulent otitis media.

Swelling and edema occurs over the mastoid, pushing the auricle out from the head; and its superior border is lower than its fellow. If marked swelling occurs early, it indicates superficial pathology, whereas, if there is no swelling, or if it occurs late, it would point to deep-seated infection.

**X-ray.** A radiogram will, in many cases, disclose the presence of pus positive.

**Blood count.** A high leukocyte count indicates abscess.

Intracranial symptoms are nystagmus, dizziness, disturbed equilibrium, vomiting or chills.

**Paralysis.** Facial and abducens paralysis may occur.

### Diagnosis.

Furunculosis may usually be differentiated by the extreme pain caused by lifting the auricle and by the swelling of the external auditory canal; while post-auricular abscess may usually be determined by very light palpation followed by deeper palpation.

### Treatment.

Written standard instructions. Why? All of you gentlemen, I am sure, have had the embarrassment of having your instructions misunderstood, forgotten, or ignored, when not given to a trained nurse. Then, too, when you were very busy or very tired after a hard day, you might possibly have overlooked some important step in your routine treatment. Having had this experience several times, I have, for the past few years, had written instructions mimeographed for all cases of more than passing seriousness.

**Rest.** Rest in bed is necessary, except the light cases that may with safety, visit your office.

**Catharsis.** Calomel should be given and followed by a saline. After the third day a daily laxative or enema is all that is necessary.

**Diet.** Give liquids, including an abundance of fruit juices.

**Water.** Encourage copious drinking of hot or cold water.

**Nose drops.** What condition do we wish to combat? A nose occluded by engorged turbinates covered with a mixed infection. The drops should be used freely and often to relieve the engorgement and to wash the germs into the throat to be expectorated or into the stomach where they will usually be rendered harmless. The silver preparations are so nauseating that they should be ruled out. The following seems better:

R.

Adrenalin chloride .....	m	X
Menthol .....	grs	ss
Boric acid .....	grs	XV
Dist. Water .....	oz.	j

M. Sig.: Warm and drop freely in nose every 3 hours.

The method of using the drops is very important. With the patient lying on his back, have him throw his head well back—extreme extension—so that the drops will wash off the middle turbinates as well as the lower.

**Inflation.** Having used the drops, the nose is usually well open in fifteen minutes. It becomes necessary to open the eustachian tubes. As the specialist cannot be on hand to do this often, and the tubes when badly congested will not remain open long, the patient may inflate them as follows: first, blow the nose to free it of all secretion; now close the mouth, hold the nose and blow sufficiently hard to feel a gentle impulse against the ear drums. He should not blow hard. The tubes should be inflated this way every three hours until they remain open, when inflation should be discontinued.

**Massage.** Owing to the advertising methods of some schools, massage has become more or less unpopular in some sections, yet it is a legitimate and very excellent therapeutic measure. By massaging

lightly several times a day, rubbing away from the affected area, one can often greatly relieve pain as well as help to re-establish normal circulation.

**Irrigation.** The ear should be irrigated every three hours with salt or hot soda solution, following it with drops of silvol; or in the event of severe pain, use:

R.

Menthol .....	
Camphor .....	aa grs Vii j
Chloral .....	m X
Glycerine .....	q. s. ad oz. ss

M. Sig.: Drop in ear for pain.

**Aspirin.** If the other measures fail to relieve the pain, aspirin may be used every three hours; or for intense pain, it may be combined with codein. Should there be excessive secretion in the nose, atropine sulphate may be added to either of the remedies mentioned or to both.

**Ice cap.** An ice cap is much better than hot applications. It cools the temperature of the part, is more soothing, and relieves pain more effectively than does heat.

**Hiss' Leukocyte Extract.** Using a sporting term, this is the surest bet against an operation. It is nothing but white blood cells put up in a 10 c.c. syringe. The extract seems to exert a neutralizing effect on the toxic products thrown off from the invading bacteria. In numerous cases that were very toxic and looked as if only an immediate operation would give relief, an injection of this has brought such marked improvement in 24 hours that operation was safely deferred or deemed entirely unnecessary. In no instance did the injection make the condition worse. In five cases out of 50, or 10 per cent no improvement could be noticed, but in 90 per cent there was improvement and in most instances very marked.

To give other evidence as to the efficiency of leukocyte extract on mastoiditis and other infections, such as erysipelas and pneumonia, I shall quote, in part, from Phillips' Book on Diseases of the Ear, Nose and Throat, pp 99: "During the last year, the writer (Hiss) has treated 21 cases (of mastoiditis) with this extract for varying periods with gratifying results.



Ten of this series were considered by the attending surgeons as desperate and probably fatal cases. Seven of these, or 70 per cent, survived. In the complete series there was, with one exception, some response to the injections of the extract, the change generally noted being improvement in the general condition and in the delirium. . . . Four cases of erysipelas occurring within a few days after the mastoid operation, recovered quickly. The cases of pneumonia were much improved, as shown by the lessening of the dyspnea, the improvement in the pulse and in the general condition." Floyd and Lucan report 41 cases of pneumonia so treated with a mortality of 5, or 12 1-5 per cent; the prevailing mortality at the hospital for the past five years having been 21 8-10 per cent. Dr. Adrian Lambert reports 51 cases of erysipelas so treated. His conclusions were that when the injection of the leukocyte extract was commenced within 48 hours of the onset, it acted almost as a specific. In average cases, regardless of the time of the inception of treatment, the symptoms were much alleviated.

Paracentesis should be done at once, making a large incision so as to secure free drainage. Since the injection of 10 c.c. of leukocyte extract causes considerable pain, I use gas-oxygen anaesthesia and open the ear drum at the same time that the extract is injected.

#### Indications for Operation.

If the symptoms are rather pronounced and are not improving, operate about the 8th day; but, if grave, one should operate at once. Of course, intracranial symptoms or facial paralysis call for immediate surgical interference. If all symptoms subside except the discharge and it continues 6 or 8 weeks, operation should be done. It is superfluous to say that every case should be decided on its merits.

#### Summary.

1. Massage is a valuable, though neglected, therapeutic adjunct to drugs.

2. Valsalva's method of inflation, used only while the tubes are stopped up, aids

the circulation and helps hold or improve the hearing.

3. Ice caps are more effective than heat.

4. Nose drops, or some form of lavage, should be used freely in all infectious diseases involving the nose, such as coryza, measles, influenza, and the exanthematous diseases.

5. Hiss' Leukocyte Extract is usually very effective in infections.

6. Written standard instructions for all cases of more than moderate severity make for accuracy.

From several years' experience with the line of treatment indicated above, I am convinced that many cases might be saved the danger, expense, and pain of an operation, while at the same time protecting the hearing and preventing necrosis, if this treatment, or one similar thereto, is faithfully followed.

### TYPHUS IN SIBERIA—OBSERVATIONS UPON MYSELF AND OTHERS.\*

Hal M. Davison, A. B., Phar. B., M. D.

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Typhus Exanthematicus, or Spotted Typhus, as it is commonly called, has been one of Russia's worst scourges for centuries. We find in the country's history records of those terrible "God's punishments" that spared no age or sex and which, at that time, could be stopped only by fervent prayer and repentance. It killed thousands of people, left as many invalids for life, and, with a gloomy persistence, returned at certain periods.

The two great factors in the Russian peasant's life that prepared a favorable ground for the start and spreading of the deadly disease were hunger and unsanitary

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conditions. Epidemics of typhus coincided with years of poor crops and generally raged during the winter, when, due to the extreme cold, peasants shut themselves in their huts, stopped all ventilation, and crowded together upon their huge stoves under dirty old sheepskin coats. Oftentimes many of their domestic animals lived with them under the same roof. Some of the villages were hundreds of miles from the railroad. Towards the end of the last century organized medical units began to be sent to those regions where epidemics were reported and there they carried out a work that was really heroic, considering its dangers and difficulties. If the disease happened to increase after the arrival of the medical personnel, its members were sometimes stoned or killed by the ignorant and superstitious peasants.

In 1917, following the Russian Revolution and the anti-Bolshevik campaigns, conditions along the railway lines in Russia and Siberia were probably the best fitted for the widespread development of typhus that have ever existed over so wide an area. Every town of any size along the entire extent of the Trans-Siberian Railway—nearly five thousand miles in length—was choked with people. The passenger cars were almost entirely used by the military and civil authorities, and others rode packed into the small box cars—seven by eight by eighteen feet—the number of passengers in each varying from twenty to seventy. Troops were moved in the same way. During the transportation of prisoners, one hundred and twenty have been crowded into some of these cars. The floors of stations at division points of the railroad were covered with people who lived there for days, and, at times, even months. Schools, theaters, and store buildings were filled with refugees flying from the Red Army. A family often occupied a space just large enough for its members to lie upon. I saw two thousand persons living in one moderately sized store building. Hospitals were crowd-

ed and had no supplies. In some instances sick and wounded were transported from the Eastern front to Vladivostock—a distance of about five thousand miles. The condition of these so-called sanitary trains were inconceivable and no description will be attempted. It is true that they increased rather than decreased typhus. One trainload of prisoners was sent from Samara to Vladivostock—the journey requiring many weeks. The well and ill—starving—were mixed together with the dead. There were no sanitary arrangements, no attendants, and no food, except what the people of the villages threw to them through the windows of the cars. In one instance five barges were loaded with a mixture of German, Austrian, Turkish, Bolshevik, and with Russian civilian prisoners, including some women. The number totaled six thousand.

Two hospitals of diarrhoea, dysentery and typhus patients were placed in with the other prisoners. These barges were sent from Tumen to Tomsk, the voyage requiring six weeks. Nearly one-half of these people died on the way and ninety per cent of the soldier escort was stricken with typhus. These conditions prevailed both summer and winter and so kept typhus going without intermission. Medical supplies were practically unobtainable, soap and water were scarce, vermin thrived, and typhus cast its gloomy shadow over all.

During relief work on the above-mentioned barges, the writer was himself infected. The initial symptoms were noticed fourteen days after the work was begun. Malaise was followed shortly by a severe, splitting headache. The conjunctival were injected and the face flushed. A deep-set ache back of the eyes and muscular pains all over the body soon began. There was no actual chill, but chilly sensations recurred for eighteen hours. Nausea and diarrhoea set in eight hours after the first symptoms. The diarrhoea was accompanied by slight cramping pains in the abdo-



men and lasted for six hours, during which time four small, watery stools were passed. There was no vomiting. By this time it was already an effort to stand or even raise the head. Vertigo was present and continued after lying down for a time. Temperature and pulse were purposely not taken at this time as an official appointment was to be kept in another town next day. Twenty-four hours after onset, the temperature was 102.6 degrees F. and the pulse 120 per minute. Forty-eight hours after onset, the temperature was 103.6 degrees F. and the pulse 130 per minute. Nausea and diarrhoea had ceased, a slight cough had begun, all other symptoms continued, and the muscular pains concentrated in the lumbar region as in influenza. Next day I returned to my hospital and the case was diagnosed typhus by a Russian physician. After this time, a chart was kept.

A faint rose rash appeared on the abdomen and chest on the fifth day. This spread to the arms and legs and some of the spots became petechial. Headaches and bodily pains gradually decreased in severity, and, after the tenth day, there remained, in the lumbar region only such aches as were probably caused by position. On the eighth day bronchitis and pleurisy developed in the right side. This caused no further discomfort than that of a frequent dry, hacking cough. The temperature suddenly rose to forty-one degrees C., the pulse went from one hundred and ten per minute to one hundred and twenty, and the respirations rose from twenty-six to thirty-eight. Daily examinations of this side by my physician were no doubt the cause of some of my delusions. I was delirious at night only. Strange to say, I was usually conscious of the delirium and, by an effort, could bring my wandering senses back, only to have them immediately return to that half-interesting, half-terrifying state of unreality. The delirium usually assumed one of three dis-

tingent forms—that of thinking over some business for the hospital, that of considering my condition, or, that of a certain dividing of my body. When the first was present, some important move was being considered. I muttered to myself and ended by asking my nurse some question that I at once realized she couldn't answer. This brought me back to normal and I apologized for the question. The second form was the contemplation of different illnesses affecting at the same time the two sides of my body. It was indeed a puzzling question of diagnosis to me. There was always some baffling surgical disease in my right side, involving the chest and at times the arm, while the entire left side suffered from some medical ailment. This delusion always came when I was quieter and half asleep, and was like a dream—cloudy in understanding, but clear as to perception of the evident facts. The third form was similar to the second and came later during the evening. I saw incomplete bodies of beasts which at the same time seemed a part of myself. It seemed to me that my body was divided into three parts. My conscious self remained in bed, and I knew that it was there with a part of my body. Along the wall at the foot of my bed and to the right side respectively, there appeared two narrow settees built with boards and covered with chintz. Upon these two couches reposed two dark bodies, monsters of indefinite form, but at the same time a part of my own body, which, for reasons I could not fathom, had become divided and lay as described. This was my worst delirium and came after my more restless hours. A word from my nurse was always sufficient to bring me back to reason. This continued from about the tenth day until the crisis on the seventeenth day of illness. The last few nights before the crisis were very restless ones. Drenching sweats came two or three times every night. I could not force a deep inspiration. The doctor

thought that this was due to pain but it really was a state of muscular weakness with no element of pain. Following the crisis, I passed from a restless, uneasy condition, to a state of drowsy languor and well-being and slept almost the whole of forty-eight hours. Recovery was speedy and unmarked by anything of interest.

A recovered patient once described typhus as a disease that takes away a man's reason, paralyzes his will, makes a beast of him, and, if it spares his life, leaves him a mere shell of his former self. Clinically, the cases we saw varied greatly. Some were of even less severity than cases of (1) Brills Disease I have seen in America. My own case may be considered an average one. Four other distinct types presented themselves. In one, the patients early went into a stupor and remained so till crisis or death. These cases often died of pneumonia as a complication. The next type was characterized by a delirium of a quieter nature, approaching stupor. Coma Vigil and extreme muscular twitchings were typical of these. Every muscle in the body seemed to be moving, the limbs being affected the most. The patient slept but little and drugs had practically no effect. These cases most often occurred among older people. Another type, also practically always met with in cases over fifty years of age, varied in its manifestations till the crisis, but when the temperature dropped, never reacted and died in six to twenty-four hours, the temperature remaining below normal till death. At this stage they presented an impressionable picture. Patients usually lay on their backs with limbs stretched out, their unwinking, staring eyes wide open, seemingly intent on the purposeful twitching of every muscle in their body. These cases gave a one-hundred per cent mortality. The other type occurred, as a rule, among younger patients, and was characterized by a wild delirium, beginning more often in the early stages of the disease. They suffered from delusions and wild halluci-

nations. Being impelled by a mad desire to flee from imagined dangers, they often destroyed themselves by jumping out of windows. Next to the average, this type was most frequently observed.

As to diagnosis and general symptomatology, I can add nothing to what has already been well described in (2, 3, 4) available literature. It is my opinion that the typhus rash in the petechial stage can scarcely be said to differ from that occasionally observed in some cases of certain other diseases, such as cerebrospinal meningitis, influenza, and severe toxemias.

The Plotz bacillus (5) is not generally accepted as the cause of typhus by the Russian physicians. This is probably due to the fact that conditions existing in Russia since 1914, the date of the discovery of the bacillus, have precluded access to the foreign medical literature. They believe that the disease is transmitted by the bite of the louse, but, at the same time, admit the possibility of transmission by other vermin carriers and by contact.

Complications were frequent and varied. No system and no organ was exempt. Lobar pneumonia was the most dreaded complication. Russian doctors claim that typhus accompanied by pneumonia from the first few days, was practically always fatal. One of them expressed the idea that the typhus, extending beyond the crisis period of pneumonia, would not allow the pneumonia to end and the continued combined infection overwhelmed the patient. Death came in these cases between the crisis period of pneumonia (on the ninth day) and the crisis period of typhus (fourteenth to seventeenth day). Bronchial pneumonia is also considered as a very dangerous complication. Bronchitis and pleurisy often occur but are not within themselves serious. Myocarditis, endocarditis, and pericarditis are met with infrequently. Epistaxis is so frequent that it is considered a symptom and not a complication. The mouth is very hard to keep clean and parotitis was one of the most



frequent complications we saw. This often went to suppuration. Otitis media and laryngitis occurred almost as frequently. Scurvy accompanied by the most severe grade of pyorrhoea and falling out of the teeth was often present in the cases from the prison trains and barges. Pregnant women miscarried in all the cases I saw. Meningeal irritation occurred in a small percentage. One case I saw had been diagnosed as meningitis but the cerebrospinal fluid was under slight pressure only and was clear. At that time we had no means of counting cells, staining, or culturing. Polyarthrititis, polyneuritis, and phlebitis are other complications mentioned by Plotz (2). These I have not seen, but Russian physicians say that they do occur in all epidemics. Severe cases of nephritis often follow typhus. Dulled mentality, loss of memory, idiocy, defective eyesight, and defective hearing occasionally resulted. Six hundred and sixty-four cases of typhus were treated in the American Red Cross Hospital at Novo-Nikolaevsk, Siberia, during the months of May, June, and July, 1919. Complications were as follows:

Pneumonia, Lobar .....	1
Parotitis .....	25
Otitis Media .....	11
Miscarriages .....	5
Multiple Furunculosis .....	7
Pulmonary Tuberculosis .....	10
Pyemia .....	2
Pleurisy with effusion .....	1
Pleurisy, dry .....	3
Gangrene of the Foot .....	1
Psychosis .....	4
Meningeal Irritation .....	1

Treatment as carried by the Russian physicians consisted of complete rest, especially good care of the nose, mouth and throat, enemata as necessary, soft diet, infusion of digitalis from the beginning, hypodermic injections of camphor in oil, baths—of which the tub-bath of warm water was preferred—and the treatment of complications. Infusion of herba adonis vernalis was preferred to the digitalis by

some doctors. For cough, they used a mixture of ipecac and codeine. Morphine, codeine, or chloral hydrate was used for the delirium and subsultus. Chloral hydrate seemed to quiet many cases that morphine in large doses did not. As long as high temperature was present, an ice bag was kept on the patient's head. The mortality rate during the three months quoted above was five and one-half per cent. It varied greatly in different localities and in different epidemics but really depended more on the care the patients received than upon any other one factor.

The prevention of typhus was both a local and country-wide problem. From the references above to the conditions existing all over the country, it is evident that practically nothing was being done in this particular line of work. It was cared for in hospitals by admitting wards properly equipped to prevent the entrance of lice and other vermin into the hospital proper. The clothing was disinfected by dry heat, steam, formaldehyde, or by sulphur, as circumstances permitted. The American Red Cross had prepared plans for the establishment of delousing plants at strategic points on the railway lines, but the military crisis caused evacuation before this could be accomplished.

In closing, I wish to pay a tribute to the Russian nurses and physicians with whom we worked. They labored under sanitary conditions unimaginable to us, without means of protecting themselves from infection. At times we found hospitals in which almost all of the personnel had had typhus. The mortality among the medical personnel was always higher than in others. Of the American Red Cross personnel in Siberia, thirteen had typhus and of these five died.

So long as Russia and Siberia remain in their present condition, typhus will thrive and will menace all Europe. We who have seen conditions as they are, hail the entrance of the American Relief Commission into Petrograd with the hope that it marks the beginning of a new era in the

present Russia and that it will furnish the means of stopping the epidemics now raging in the country, of which, typhus is the most devastating.

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### MEDICAL SECTS IN THE UNITED STATES AND ABROAD.\*

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Medicine has an ancient history, a medieval history, and a modern history. No other science in the world has produced more martyrs than medicine, and when a science produces martyrs—geniuses who sacrifice their lives for the science—their teachings become great and sacred.

When we have the past and present history of a science we can easily predict the future. Tracing the medical history through its various stages we find that it follows the course predicted by the great critical philosopher, Max Nordau, when he said: "There are three classes who create science, art and ideas in our life. First comes the genius who discovers the science; second, comes the disciple who knows and understands the teachings of the genius and who develops the science and makes it popular in order that the masses may understand and adopt it, and third are the masses, the people at large, who put the crown on the head of the genius."

From Moses to Hippocrates, to Mimonadus, to Harvey, to Pasteur, to Jenner, to Metchnikoff, to Ehrlick, we find an historical chain of great geniuses, and after them disciples who taught us their science, developed it, and made it practical in our lives. The nations of the world crowned these geniuses a long time ago, and they will remain kings as long as the human

race exists. To every medical man their names are holy and their examples and precepts are followed.

When people try to destroy the teachings of a great genius with no scientific proof, we condemn them and brand them as ignoramuses, fakers, charlatans and quacks.

To discover and build a science, a person must possess a great intellect and a mind highly educated; he must know the history of the particular science in which he is interested from A to Z, because he can not discover a science already discovered, although he is not aware that the science exists. He may work on it and think he is discovering something new. As an example, Dr. Hunter, of England, though a great man, used to make discoveries which had been in existence quite a time before, due to his lack of knowledge of historical facts. Dr. Hunter, an honest and intellectual man, upon having his attention called to the fact that a discovery which he had made was not new, simply smiled and remarked: "What a fool I've been." Every honest man would act in the same way, but some so-called discoverers of different medical sects in the United States and abroad—people of low intellectuality, ignorant of medicine and history, who have not at heart the interest of the profession, act differently.

Now let us see how many medical sects we have in the United States and abroad, from whence they come, who discovered them, and what they have accomplished. We find in our country at present the following medical cults: Homeopaths, Eclectics and Physio-Medicos. These three are drug schools. As drugless schools we find Osteopaths, Mecano-therapists, Physio-therapists, Chiropractors and Naturapaths.

There are a few religious faith-cure schools which are not classified in the healing sects for various reasons, the main reason being the following: Religion is a filling of heart, a spirit aroused in the soul; and when heart and soul create a spiritual feeling, no one is permitted to

\*Read before the Fulton County Medical Society.



criticise.\* The great Jewish philosopher, Spinoza, said in his book, "Ethics," "Don't discourage your fellowman when he is happy in his belief, and his religion creates a therapeutic power. Let him be happy in his little world." The Christian Science Church in the United States and the Church of God and His Son Christ in Europe have helped many thousands of neurotics, and the members of these churches are happy in their belief. Let their happiness continue. We, as physicians, have no right to criticise.

Hahnemann, in 1800, decided to revolutionize medicine. He announced to the world his sure cure theory. His motto was: "Die milde-macht ist gross," which, translated, means, "The mild dose is of great power." Also "Similia similibus curantur," meaning "Like is cured by like." Had Hahnemann been a scientist he would have known that Hippocrates had demonstrated the Homeopathic theory centuries before, and that the demonstration had resulted in failure. Paracelsus, Stoerch and Krugansky had followed in the footsteps of Hippocrates in regard to the Homeopathic theory, and this is what they said about it: "Counter irritation cannot be adopted as a general theory in medicine, especially in internal medications. Symptoms are only manifestations of a disease, and therefore, we cannot fight a symptom. A drug action in a healthy human body will produce symptoms, not similar to a symptom from a pathological condition."

When Doctors Stabick and Schumann called the attention of Hahnemann to the fact that his methods were not scientific, and above all, not new, Hahnemann replied: "Aber Sie sind neue für mich;" in other words: "But they are new to me, and time will prove the truth." Now let us see how Father Time took care of the Homeopathic theory. In Germany, the cradle of Homeopathy, several medical schools were established which spread to France, England, Holland and Belgium. The public flocked to them, trying to find a cure for their incurable ailments. Every

Homeopath pretended to be a miracle man. In 1833 Homeopathy was brought to the United States and a few dozen Homeopathic schools were established here. In some states these schools became a part of the public universities: for example, the Medical Department of the University of Boston. In 1850 the United States had sixteen Homeopathic schools; in 1860 and 1870, 25 schools; in 1900, 22; in 1910, 12; and in 1920, 5. Two of these five are class "A", while the three remaining are class "B." In the years mentioned the Homeopathic schools decreased to such an extent that the people of the new generation are not even acquainted with the Homeopathic theory.

The old practitioners are dying out in Europe, and for the last ten years Europe has produced no new practitioners in Homeopathy. Although many European universities provided Homeopathic lecturers, their classes were not attended by the students. The joke goes. "He is a professor without a theory and a teacher without a class." The system is dying and in the next ten years Homeopathy will be a theory of the past in Europe. It is remarkable that in Germany, the home of Homeopathy, the theory died twenty-five years before the time it passed out in France, Belgium, England and Russia. Italy never had Homeopaths. Russia placed restrictions against them, and in order to be a Homeopathic practitioner in that country, a physician was compelled to go through a regular medical course. Spain never allowed a Homeopathic school to become established.

The Russian investigator, teacher and medical philosopher, Dr. S. T. Ivanoff, expressed the following in his book: "The Homeopathic Dogmas"—"A theory which cannot be combined with practical science must die the natural death. The Homeopaths have failed to recognize the necessity of serum therapy and, therefore, their theory that 'like is cured by like' is denied by themselves." The few schools in this country in conjunction with their Homeo-

pathic practitioners will meet the same fate.

The Eclectic medical school is a product of the United States. The Eclectics call themselves the American System of Medicine. Of course, they sail under false pretences. They have changed their name twice in the United States. At first, they called themselves Botanical Physicians. Years later they adopted the name: Eclectic School of Medicine. For awhile they followed the Botanics of herb physicians of Switzerland, but in the later days they adopted the above name, and distinguished themselves as the American School of Medicine. How ridiculous it is to name a science after a country! Medicine cannot be called American, German or Russian, regardless of the nationality of the discoverer.

Eclecticism was practiced five hundred years before Christ. At that time all the medical schools were under the influence of the religious sects. There were the following schools: Dogmatics, Empirics, Methodists and Eclectics. The Eclectics call their medicines specific. Now let us see what the specifics are in medicine. A "specific" medicine is a definite, known cure for a particular disease. It cannot be denied. The drugs really known to be specific are so few that you can count them on your fingers. We know quinine to be a specific in malaria and mercury in syphilis. The others are few. In addition to that, when the students and healers are taught to be practitioners with specific drugs they do not advance, because they religiously believe in the therapeutic value of each drug, and when there is no advancement in medicine, the day of their theory is short.

Now let us see how many Eclectic medical schools there have been and how many we have now. In 1850 there were four; in 1890 they had nine; in 1901, ten; 1909, 8; in 1921, one school of Eclectics. I believe these figures speak for themselves.

The physio-Medicos were organized in 1821 in Frankfort-on-Main. The discoverer, Dr. F. J. Reichharber, wanted to

combine physical-therapeutics with general medicine, at the same time eliminating all mineral drugs and selecting only tea medicine, massage, hydro-therapy, and movements. Dr. Reichharber was a person of low mentality and lacked a good medical training. He thought he had discovered something new, so he applied to the German government for a charter to establish the school of Physio-medicos. The scientific medical men of Germany protested to the government, so a charter was not granted, and as a result, the school which had been conducted without a permit, was closed. In 1860 a physio-medical college was opened in Chicago under the name of the Chicago Institute of Physio-Medicine. In 1870 there were two schools in Illinois. In 1890, 3 schools; in 1900, 2 schools; in 1907, 1 school. In 1910 not one existed, and it is remarkable that this school has produced more practitioners than the eclectic and homeopathic schools.

In Europe, due to the fact that the scientists have been on the look-out, and the public-at-large disappointed in Homeopathy, they did not place confidence in the new miracle.

Now let us see what the drugless schools have accomplished in Europe and in the United States. I will begin with osteopathy. In 1775, Dr. Ling, of Stockholm, and Dr. Petroff, of Russia, established physiological institutions for chronic diseases. Both of them, as medical and regular practitioners, had devoted their time to physio-therapy in order to relieve and to cure those diseases which are incurable with drugs. Dr. Ling says in his book: "Manipulations as a therapeutic,"—"Drugs are at times needless and useless; in many cases, powerless; therefore, medicine shall not depend upon them entirely. We can take into our healing system massage, the ancient Greek sports movements and develop it into a science." He named his science, "mechano-therapy." Dr. Petroff, in his book, "Rational Medicine," made the following statement: "All chronic diseases and some acute sicknesses



can be treated through the system, and the human body will respond more quickly to natural agents than to drugs. The organs and the nervous system can be adjusted and set to normal functions when proper food is given and a normal circulation is established. Dr. Mialick, of Prague, Bohemia, went further and added to this the theory of spinal therapy. In his book: "Naproprava," which means "adjust" in the Bohemian language, he expressed the following: "The spinal cord must be free in movement, as it can happen that a nerve which controls an organ or a part of the body can be impinged in the vertebrae, and this may result in a non-functional condition of an organ." The word "naproprava" and the theory of spinal therapy was adopted from the Bohemian people. As a fact, a Bohemian, when not feeling well, before calling a physician, asks his neighbor to adjust his spine, and every one of them practically knows how to do it. Dr. Ling, Dr. Petroff and Dr. Mialick lived contemporaneously. They exchanged ideas with one another, and introduced their theory to every medical school in Europe. Soon the manipulative theory began to develop rapidly in every civilized country in Europe.

Dr. A. D. Still, of the United States, in the year 1881, announced to the world his new discovery, which was that sickness can be treated without drugs, and only with the use of his ten fingers. Had Dr. Still been highly educated, and had he known medical history, he would have known that a hundred years before his time, a Stockholm physician, a Russian physician and a Bohemian physician had worked out the theory of manipulation, yet none of them claimed to be the discoverers. The theory of manipulation is the oldest in medicine. It only needed some one to develop it. The difference is that Drs. Ling, Petroff and Mialick made it a part of medicine, and Still created a special school, in opposition to regular medicine. Dr. Still deserves the credit for developing the manipulative treatment in the United States, but he must be criticised for

his action of establishing an independent school which does not satisfy the modern system of medical science.

Medical science is not based on drugs only, but on every therapeutic measure derived from physical and mental powers. It was called by Hippocrates and later by the Jews, "rational medicine." It is now called "rational" and will be called "rational medical science."

The once great miracle of osteopathy is slowly fading from sight. Osteopathy as a branch of medicine is of value, but as a medical sect it is absurd. In fact, when the technique of osteopathy was demonstrated in Europe, the medical congress said: "Osteopathy is a well-known theory under a new cover."

The mechano-therapists and physiotherapists are drugless schools which are using drugs on the quiet, knocking each other, and are doing the identical work the osteopaths are doing, but without the splendid training of the latter. The chiropractors are literary thieves. The founder, Palmer, is an ignoramus, quack and charlatan. He adopted the Bohemian science: "Naproprava," attached to it the osteopathic theory, and made a school of his own and a bank book for his family. The prosecuting attorney ought to analyze their theory more thoroughly. The Naturapaths in Europe are medical men who are using drugless therapeutics. They use hydro-therapy in a highly scientific way, manipulations of great skill and diet. In the United States there are a bunch of quacks who are graduates of underground schools whose adherents call themselves "Naturapaths." The pioneer of the naturapathic theory in the United States is a German, not a medical man, who resides in New York and conducts a school of naturapathy. This gentleman has been in the criminal dock several times and in spite of all the fines and attorneys' fees he has paid, he still has a few buildings in New Jersey and a bank book of a million dollars.

I am presenting here an instrument called the Baunscheidtismus. With this

instrument non-medical men in Germany, and afterward in all parts of Europe, treated all kinds of diseases. They punctured the affected part of the body, rubbed the punctures with croton oil or with cajuput oil, or some other counter irritant, and claimed this to be an all-round cure, so a medical sect was established with the name, "Baunscheidtist." Fifty years ago it came to this country, and here is a book written in the German language by a German with the theory and practice of this instrument. I submit before you a book of materia medica and therapeutics written by an American medical man, Robert Bartholow, Professor Emeritus of Jefferson Medical College. The first edition of this book was written in 1876, 45 years ago, almost a half century. In this book you will find what medical men the United States had and every therapeutic agent of our medicine. Bartholow even describes the Baunscheidtismus instrument. Dr. Bartholow, as a great teacher, collected all the discoveries in the medical science which he knew about, and if some quack wants to discover a new school in medicine, let him read Dr. Bartholow's book, where he will find plenty of theories on which to do his fake work.

Statistics herein used taken from A. M. A. Journal

### KNIFE BLADE IN BRAIN.

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**Case.** Mr. A. C. Age 23. October 17, 1921.

Admitted to the hospital with a right side hemiplegia in a semi-comatose condition with the following history:

September, 25, 1921, at 6 p. m., while partly intoxicated, patient engaged in a fight with another man and was stabbed in the left side of the head with a pocket knife, the blade penetrating the skull and was broken off; it was not known at the time by the patient or the attending phy-

sician that the blade was broken, it being considered a scalp wound.

When struck, the patient fell and was unconscious for two hours, had no convulsions; patient was carried to a nearby house and put to bed. Consciousness returned fully in two hours; patient had good use of himself, slept well that night, was up early next morning and walked two miles to his own home, ate heartily and had no symptoms except the slight scalp injury. No doctor was called at that time.

Prior to being injured, patient was in good condition and past history negative.

Three days following the injury, patient became dizzy, "turned sick and blind" for the time being. He went to bed, though he still could walk. On the fourth day, patient was "up and down around the house and yard," but called a doctor, who considered his wound superficial and of little importance.

On the seventh day at noon, patient noticed a tingling in the foot, leg and hand on the right side and went to bed. He does not know if he had fever and does not recall having had a chill. The tingling in foot, leg and hand became more pronounced, developed into a numbness and paralysis on the seventh day following the injury.

Patient remembers events during the second week following his illness. He lost control of his urine and bowels the latter part of the second week. He does not remember events during the third week and has only a hazy recollection of being brought to the hospital, which was three weeks following his injury.

### Examination.

A well nourished white male adult lying in bed, three weeks growth of beard on his face, slight elevation of the scalp on the left side of the head near the center of the parietal bone, small scar in center of area covered by scab. Skin clear, no eruption. Eyes somewhat prominent and inflamed, pupils equal, contracted and react sluggishly to light and accommodation; movement of eyes normal. Nose and ears negative. Mouth, teeth in good condition,





Fig. 1. Knife blade in skull.



Fig. 2. Section of bone removed with knife blade in center.

but not well kept; tongue coated and breath foul. Muscles of the face drawn to the left side. No spasm of the muscles of the neck. Chest negative. Abdomen negative. Extremities, no edema, muscles flabby, complete hemiplegia of the right side.

Patient shows a slow mentality and is in a semi-coma though he can be aroused and answers questions intelligently. He does not talk distinctly.

Temperature 99.3-5, P. 86, R. 20.

Patient sleeps most of the time; urine and stools involuntary. Blood shows mild leukocytosis.

#### Diagnosis.

Abscess of brain left side, with knife blade broken off in skull and sticking in brain.

X-ray examination showed knife blade one and one-eighth inch in length in the skull, left Rolandic area.

#### Operation.

October 19, 1921, using local anaesthesia, one-half of one per cent novocain, a horseshoe shape flap of scalp was reflected which revealed the broken end of the knife blade in the skull.

We trephined, removing a section of bone

2 1-2 cm. by 3 cm. with a knife blade in the center. When the section of the skull was lifted the dura was exposed, showing opening by blade through which exuded a thick greenish-yellow pus. The brain was not pulsating in this area. A crucial incision was made in the dura, which exposed an abscess size of small hen egg, which was irrigated with saline, a small rubber sleeve drain inserted having exit at lower angle of incision of the scalp. Normal pulsation of the brain returned following excavation of the abscess. Scalp closed.

Six hours following operation tingling returned in foot, leg and arm and patient could move foot slightly. In twelve hours following operation sensation was returning and he could move arm and leg slightly. Twenty-four hours after operation patient seemed much brighter, talked better, could move leg freely, sensation improving rapidly and could move arm, but not so well as the leg.

Sensation returned rapidly to the right side with some hyperesthesia in arm and leg. Patient was kept in bed ten days following operation, though he insisted that he could walk earlier. He walked with a slight limp and could shake hands, though

muscles of the right hand were not fully under control.

The rubber drain was removed from wound on the fourth day, scalp wound healed promptly.

Patient was dismissed from the hospital seventeen days following operation with good use of himself, except slight incoordination of the muscles of the right hand and arm and slight facial paralysis right side.

Patient regained control of bowels and bladder one day following operation.

#### Remarks.

An x-ray picture of blade in the skull and photograph of the section of skull removed with blade in center accompany this report. If I had not made a diagnosis of an abscess which required draining I would not have removed so large a section of bone.

This bone defect may be replaced at a future operation by an osteo-periosteal graft from the tibia or from the adjoining surface of the skull.

#### COMPENSATION.\*

By Dr. Fred Hames.  
Atlanta, Georgia.

I am prompted to write a paper on this subject, due to my close association with the injuries occurring in industry and in an effort for more conservative treatment in the handling of these cases. Compensation as a law became effective in Georgia March 1st, 1921, and is a law primarily for those employed in industry. The law is wide in its scope and covers all cases of injury to employees while in the line of duty. The different purposes of the law are to compensate injured workmen for loss of members or for loss of time as a result of bodily injury. It also provides for medical expenses within a limit and for all treatment in such injuries. The law also covers loss of life and permanent disability, the maximum payment in such cases being \$4,000 and in cases of death an allowance of \$100 for funeral expenses. As an illustration of the payments made under compensation for loss of a member: should a man lose a leg he would be entitled to one hundred

and seventy-five weeks' compensation based on fifty per cent of his average earnings, but not to be more than twelve dollars per week and not under six dollars per week. The loss of other members is compensated for proportionately as are also such injuries as would constitute a permanent partial disability. When we take into consideration the number of accidents occurring to workmen and consider the monetary loss it reaches proportions almost undreamed of by those not actively engaged in the treatment of industrial injuries. In the ten months beginning March 1st, 1921, through January 1st, 1922, there were reported to the Industrial Commission 11,606 cases of injury. Of these cases 1,900 were compensable cases, that is 1,900 drew money as a result of injury. Two hundred and eighty-two cases of this number were fatal and of the 282 fatal cases, 226 were compensable. There were two cases of permanent total disability. The total amount paid in compensation and for medical treatment was \$750,000.00 and of this amount \$268,000.00 was for medical alone. Those figures will give you an idea of the enormity of industrial injuries.

Now, as to the type of injury. This varies anywhere from minor abrasions to the loss of members and life. The majority of the cases are of a trivial nature and do not necessitate a loss of time. Some of the cases are not reported to the foreman or employer until they have become infected. We also have to deal with cases of supposed injury or malingerers and this is not an infrequent problem. I have had any number of cases in which no evidence of injury could be found yet these employees will remain away from work anywhere from a few days to two or three months. A goodly proportion of this type of cases come in supposedly back injuries which, in my opinion, are the most difficult ones to disprove. Other difficult injuries are those supposedly of the ear and abdominal cases. Not infrequently are venereal cases charged by employees to some alleged accident.

There have also been several claims

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



made after death where no evidence of injury could be found and where no report of injury had been made to employer. One of these cases in which a claim was made proved to be from typhoid fever.

The weekly Industrial Insurance policies also give rise to considerable trouble by the injured employee attempting to lay off and thereby collect an indemnity when in reality there is no injury.

Now, as to the causes of a great number of industrial accidents. These causes, of course, are many and varied. Many are directly traceable to absolute carelessness on the part of the employee and I believe that this forms the largest percentage of the total. A great many of the accidents are caused by the faulty placing of employees as to his ability for the character of work that he is to do. An individual of the plodding type is placed upon piece work when in reality he should be on day work or paid by the hour. We have also the opposite where the nervous energetic workman is placed where the plodder should be. The plodding type of individual in his effort to make a showing is often injured by the increased effort on his part and the same applies to the energetic and nervous individual in that he loses his incentive and becomes careless. Other frequent cases are the improper guarding of machines. I have in mind one machine that in one year was responsible for the amputation or partial amputation of eighteen fingers. Poor lighting is another frequent cause, as are also wet floors, and it is not infrequent that injuries of the feet come from the wearing of shoes from which the soles are worn away. Poorly constructed scaffolds also contribute their toll of injuries. Accidents also occur from the physical disabilities of working men which have no reference to their work, that is epileptics are injured while in a convulsive seizure and there are also occasional injuries occurring in fainting attacks.

What is to be done for the prevention of these accidents? It is up to us as physicians to advise and educate employees in

the prevention of accidents and to co-operate with the employers in removing the source of frequent injury. It would not be amiss to have first-aid and accident prevention lectures given employees in the larger plants at regular periods and I am of the opinion that it would be a good investment for the employer to have frequent casual examinations of his employees in reference to their health and frequent inspections of the sanitary and physical conditions in his plant.

As to the monetary loss of the employer as a result of industrial injury, giving the workman an average expectancy of thirty years in these cases of fatalities we have a loss of 8,460 years of labor and from the monetary side, placing the workman's services at \$600.00 each per year, we have an economic loss of \$5,176,000.00. These figures are merely considered as the workman's earnings and the loss to the employer will greatly exceed this sum through the loss of services of the trained employee. These figures of dollars and cents, however, can in no way compensate for the loss of the husband and father and for the misery and suffering which must occur as a result of the death of the head of the family. The above figures are of the loss occurring in the State of Georgia only and that for a ten-month period. In the country at large we have annually 900,000 industrial injuries in which there is a loss of four weeks or more and of this number approximately 300,000 are of a permanent character. Estimates are made of industrial deaths per year around 28,000. This gives us some idea of the enormity of industrial injuries.

The law contemplates medical expense in a sum not to exceed \$100.00 which expense must be within the first thirty days. This \$100.00 is to cover all of the expense incidental to injury, such as hospital, ambulance, x-ray, etc. In a certain proportion of cases this is absolutely inadequate and we face the problem of receiving no fee unless some special arrangement is made. It has been my experience that the insurance carrier or the employer will, in

the majority of cases, authorize an additional sum where he can be shown that the employee will be benefited and that permanent disability will be lessened or done away with, which, of course, is a wise investment for him. There have, however, been many instances where the employer or insurance carrier has been taken advantage of and where the expense has been increased out of proportion to the injury. Since the passing of the compensation law I have acted as Medical Supervisor for one of the larger insurance companies and I have found instances where advantage has been taken of the fact that the medical expense was to be paid by the insurance company and where charges were made out of all proportion to the case in hand. It is true that all bills are paid by the insurance company, but we must remember that this charge is one incident to the charge paid the insurance company by the manufacturer for coverage. With an increase in his medical expense from the average upon which his rate is promulgated he will have to pay an increased rate and we should consider always that it is our neighbor and our friend, the employer, that is in reality paying the medical expense. I cannot too strongly impress this fact, for in one or more states there has been a change in the law and no provision is made for the guaranteeing of medical expense and the doctor is forced to look to the workman himself for payment for his services. This would be, indeed, a bad situation as the majority of us would not care to handle the run of cases of this kind and expect to collect from the employee himself. We should consider the fact that in handling these cases we have a practical guarantee of fees and should show consideration in our charges and we should also remember that it is the purpose of the law that services for treating an injured workman should be in proportion to his station in society.

The treatment of these cases resolves itself into the injury presented. We should bear in mind that all cases of industrial

injury are potential charities; that is, if the workman is unable to resume his duties, it will not be a great while before he will become a public care and conservatism should be practiced in all cases. We should lend our greatest effort to the saving of members and the prevention and treatment of deformities and permanent disabilities. We should bear in mind that in treating these cases that in the majority of instances we have a most trusting patient and every effort should be made to make him comfortable and restore him to health. Every effort should be made at a proper diagnosis and the x-ray should be employed in all cases of suspected bone injury.

Badly lacerated wounds of the fingers and hands should be thoroughly cleansed and the macerated tissues removed, tendons sutured and any open fractures reduced as soon after injury as it is possible to do so and all wounds should be kept continuously moistened with twenty-five per cent listerine solution. If you will take injuries of this kind and properly splint them it will be an exception in which amputation will be necessary. Personally I believe that the open reduction of fractures where the soft tissues are badly damaged is wrong and that more conservative treatment is necessary if these cases are to be saved.

In injuries to the soft parts all cases in which the skin is broken are treated as infected injuries from the beginning. I make it a rule to give all cases presented with punctured wounds and all cases of traumatic amputation a preventative dose of tetanus antitoxin. This is an inexpensive procedure but the prevention of one case of tetanus per year will more than pay for all the antitoxin used.

I have found that it is a good idea to make as many of these cases of injury as possible ambulatory. I have learned from experience that the type of individual usually received in an industrial way is prone to consider his injury of a much graver nature if he is placed in a hospital,



and it will very often become difficult for you to convince him otherwise.

In conclusion, I wish to make the appeal for more conservative treatment of industrial injuries and for closer attention to the detailed handling of injured workmen. If by my effort expended in this paper I can be instrumental in saving the fingers of one industrial worker I shall feel fully repaid for my effort. Let us study these cases and strive to rehabilitate the injured workman.

Dr. O. H. Weaver, Macon:

I enjoyed Dr. Hames' paper, and was very much pleased with the resume which he made of the employees' compensation law. There is nothing that I feel I can add to the paper, but there is one particular feature which I would like to stress, and that is the part in which he spoke of the \$100 compensation. The part of the law covering that particular feature of this matter provides that the doctor's fee and the hospital fee, including x-ray and laboratory examinations and every attention given to the injured man, must be not over \$100. Of course, in the great majority of cases the expense does not amount to that, because the majority of cases are minor injuries. But it has happened in my town several times that the question has come up in the city hospital, which is the only hospital that handles negroes, that the superintendent has considered excluding compensation cases unless some one will guarantee to pay the bill. It is my purpose to introduce a resolution in the House of Delegates calling the attention of the Committee on Legislation to what I consider that defect in the law, and see if we cannot get it amended in the coming legislature. It is certainly an imposition for a physician to give his time and attention to a serious case, and, if the hospital bill amounts to over \$100, have no claim whatever.

I have had very few cases that amounted to over \$100, and the insurance companies have not bound me to that amount and have very nicely paid my bill without question. But they could very well stand upon the law and deny the doctor his compensation.

Dr. C. W. Roberts, Atlanta:

Workmen's compensation in Georgia is a new thing, having gone into effect, as most of you know, in March, 1921. The thing itself, however, is not new by any means. It began in Germany about 1884 and spread rapidly throughout the industrial countries of the world, so that now some fifty countries have it. The first law in the United States was passed in 1911 in the State of New Jersey, and, to show its popularity, somewhat over 99 per cent of the workmen in that State are operating under the law. Only four states in the United States are now without the law, namely, the two Carolinas, Louisiana and Mississippi. Georgia was the forty-third state to pass it. Workmen's compensation has come to stay, because it has supplanted liability laws and others that were more defective than the present compensation act. There is no doubt that it will be revised from time to time and the objectionable features removed. Need for workmen's compensation has come about because of the development of industry, and on the ground that some two million industrial accidents happen in the world each year, out of which 500,000, or about 25 per cent, last over two weeks and so become compensatory. In some 60,000 cases the workman is out for over two weeks.

We are all familiar with the old-time law suit which was fought through the courts, and in which there was a lot of lost motion, when, as a matter of fact, this thing, being of medical nature, should be referred to a commission, as it is now, charged with the responsibility of looking into the actual facts and dealing with those facts. Having been associated with the industrial commission administering the law in the State of Georgia, I am somewhat familiar with most of the phases of the law, and I want particularly to speak of that phase mentioned by Dr. Weaver, namely, the \$100 limit. At a meeting of the adjusters of the various companies this point was brought out, and this conclusion was arrived at—that in all cases where it was necessary for medical service to extend over thirty days, or where the combined expense would go over the \$100 limit, all that would be necessary would be for the physician to take it up with the insurance company before his bill ran so high, and in those cases the additional services would be authorized.

Dr. Theodore Toepel, Atlanta:

It has been said that this law has been very popular, starting in Germany and quickly spreading over Europe, through England especially. I know that every one here has read accounts of its popularity, and, at the same time, of its unpopularity among the doctors. Doctors are not faring as well under this compensation act as they should. In Europe they have realized that, and therefore they got together and are now revising the compensation acts, with more favorable laws than they had in the past, and it is necessary for us doctors here in Georgia also to combine and not be asleep, as we were when the compensation act passed the legislature.

This act is only an entering wedge. We all realize that workmen must be protected and must get the best medical service that our profession can give them. At the same time, we are due our compensation as much as they are due the best medical service, and we must be represented in the future in anything that the legislature passes, so that we can voice our sentiments as to what we shall do and what we shall receive.

Dr. Hames, closing the discussion:

I want to say to Dr. Weaver that I agree with him in his views. I have found in all cases that if the doctor will acquaint the insurance company with the facts in these cases, before the charges go to an excessive amount, satisfactory arrangements can be made.

Dr. Toepel speaks of the doctors not being taken care of. I think they are. In 98 per cent of all cases the compensation fee is adequate. There are only two per cent where the amount allowed is not sufficient, and I think that it will be better to wait until the law is working well and thoroughly before we try to make changes and raise the limit.

## DOCTORS AND NEAR DOCTORS.

The public is ever impatient of the physician's doubtful diagnosis of his inability to explain disease in a word and cure it with a word. It is ever eager to welcome a simple statement of why we get sick and how we may get well again. If this statement has any degree of inherent plausibility, it will impose upon large numbers of intelligent people.

A case in point is the newest school of healing, "chiropractic." Every physical process is of course directed through the nerves. These lie in part in the spine, branching off to their destinations. Spinal dislocations lead to pressure of bone on nerve, inducing paralysis and other disorders. Aside from the specific cure which resetting will effect, it is clear enough that spinal massage will be of much general value.

So far, so good. But the chiropractor makes the generalization that all disease, of whatever character, is due to spinal displacements of a mild sort for which he has invented the name "subluxations." He proposes to cure and to prevent all illness by fingering the spine and setting right its subluxations. He treats blindness and deafness in this way, though the nerves to eye and ear never leave the skull. Germ diseases that are too well established to

be attacked as such he meets with the explanation that infection proceeds only in the presence of subluxations—if we but have perfect spines we may with complete immunity carry capacity cargoes of the deadliest bacteria. The chiropractic novice locates with a touch of the finger “subluxations” of which trained anatomists are able to find no slightest trace. The spines of investigators have been x-rayed before and after chiropractic treatment, with no visible change. As more than an adjunct to orthodox medical practice the thing is absurd.

Now the M. D. is compelled by law to be of good character, to have a common education admitting him to a university of standing; to study medicine for four years or more; to pass a stiff examination in his entire field. Then and only then is he free to “diagnose, treat, and claim to cure” under state license.

Anyone lacking the full equivalent of these medical requirements should be excluded from diagnosis, treatment and claim to cure, in no matter what guise; one who without this training practices in any way on the human mechanism is a menace. We cite a typical case, where a thoroughly honorable practitioner of one of these newer schools was treating a troublesome knee. The case was diagnosed as calling for ordinary manual treatment—massage, to call a spade a spade. For six months it got this; and the bone tuberculosis which was at the root of the matter has been diffused throughout the patient's body, so that she is now dying of pulmonary tuberculosis. Treatment without competent diagnosis of the most innocent-appearing malady necessarily involves risk of error as serious as this.

Another aspect is even more vicious. Frankly the chiropractic schools hold out the lure “no preparation needed beyond the ability to read and write.” They urge the students to register now, before the state steps in and stiffens the requirements; they guarantee that if he does they will certify him as having met any new requirements which may be enacted before

he graduates. An investigator, taking courses at one of these schools, was careful in his final examination in chemistry to answer every question incorrectly—and still he “passed.” Half and quarter hours are substituted for full hours of study to conceal the extent to which an adequate course is not given. Graduates of correspondence schools are certified to practice, though they have never seen the inside of a class-room or clinic. The testimonial factory at Davenport, Iowa, circulated 100,000 copies of a document attesting to a miraculous cure in a case where investigation showed that recovery was had only after the chiropractor had failed to give relief and had been discharged. The recorded cures in any event follow the chiropractor's own diagnosis—which at best is incompetent and at worst is a deliberate exaggeration. The gentle art of “selling” his wares to the prospective patient is a large part of the course offered the chiropractic student who in one case is recruited by means of street-corner soap-box orators. A member of the New York County Medical Society found a chiropractor who had been highly recommended to be a man whom he had known six months before as a chauffeur.

These are but the high spots. The reason why chiropractic has attracted persons of such caliber is because it affords a quick and easy way to set up a pseudo-medical practice that will earn specialist's fees, without meeting the requirements of honest medicine. As long as such an opening is available it will be used. To prevent this sort of “professional service” from gaining an established footing, as well as to protect the individual patient, it ought to be a definitely established principle that no substitute for a doctor may advise or treat without a doctor's consent, unless he has learned as much as a doctor must learn and has learned it as thoroughly as a doctor must. The proposal now made in New York to license chiropractors or exponents of other cults after a rump preparation of a year or two is in every way bad.—Editorial, Scientific American, May, 1922.—*Jour. A. M. A.*



**THE JOURNAL**

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

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Publication Committee  
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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****AN APPEAL TO CONTRIBUTORS.**

The Journal has from time to time been the recipient of more or less criticism by the members of the Association and others, and none are more cognizant of its deficiencies than those charged with its editorial management. Some of the conditions of which well founded complaint has been made are no longer operative, as a review of the numbers for the past year offers convincing evidence. Conditions in the printing trade are now more nearly stabilized, so that it has become possible for the issues to appear promptly, and yet, in most instances, after a sufficient time has been allowed for the reading of proof. Errors in punctuation, in spelling, in composition, and in diction continue to ap-

pear, but, with the exception of one issue, during the current year have been relatively infrequent. When it is remembered that the Association has not yet been able to provide a full time editor, it is evident that all inaccuracies cannot be eliminated; indeed, it has not yet been shown to be possible to issue a publication typographically perfect even under more favorable circumstances. Additional financial resources, however, due to increase in the number of subscriptions and in the amount of advertising, offer the prospect of the receipt by the Journal of the benefit of a less parsimonious policy than has characterized it heretofore.

Until one has had the opportunity to edit a number of papers as sent in for publication it is difficult to realize how much work must be done upon them,—work which should have been done, and could have been done more satisfactorily, by their authors. Papers of intrinsic merit must frequently be returned on account of carelessness in their preparation; and those accepted usually go to the printers with from 30 to 300 corrections, despite the fact that they are submitted by men well grounded in English and fully capable of so preparing them as to be ready for publication as written.

Any one contemplating the preparation of a contribution should first determine for himself whether he has a definite message to convey. If not, he will do no more than encumber medical literature with an additional burden of irrelevant matter, and injure his own standing with the profession by taking up its time—or attempting to do so—unnecessarily; if he has observed new facts, or is able to draw original conclusions from facts already established, it is his privilege and duty to promulgate them. If it is decided that facts observed, researches made, or conclusions drawn are of scientific value, the attention they receive will depend, in a measure, upon the skill and care with which they are presented. An article injudiciously arranged, couched in obscure, involved, and verbose

language, and punctuated by minor errors, arouses distrust in the mind of the reader as to the accuracy of the observations recorded, and in consequence detracts from, rather than adds to, the reputation of the writer.

An obvious fault appearing in much of the current literature is the absence of a definite structural plan, resulting in a rambling, desultory sort of paper which is difficult for the reader to follow with sustained interest; a fault easily avoided if a suitable framework is established in the beginning. If the prospective author will choose a concise, explicit title, germane to the subject of which he proposes to treat, and then select subheads which bear a distinct relation to the points to be made under them, his ideas will fall naturally into an orderly and logical arrangement.

It is customary for papers, especially long ones, to embody a summary and conclusions. Inasmuch as it is upon them that the reader will usually base his determination whether or not he will give the paper more careful study, they may be regarded (to borrow a term from commercial usage) as the 'selling talk' for the author's ideas. If they appeal to him he will give the matter more extended consideration; otherwise he will pass it by. Especial care should be given them, for, unless they 'sell' the paper to the reader or reviewer, there will be no further opportunity to gain attention. The summary should present briefly a succinct abstract covering the main points brought out in the body of the article; and the conclusions should set forth in concise, clean cut sentences the original deductions that may be legitimately drawn from the data presented.

The American Medical Association has issued a little book in pamphlet form, "Suggestions to Medical Authors," which sells for 25 cents and should be on the desk of every one who writes for the medical press. With this, or some such work, a text book on English, and a standard dic-

tionary with lists of synonyms at his elbow, the author should revise his paper with minute care: correcting errors in punctuation, spelling and capitalization; substituting where necessary the synonymous word that conveys the exact shade of the idea he wishes to express; arranging his sentences in logical and euphonious order; verifying each fact and reference to the literature; eliminating all superfluous words, particularly avoiding such words as connote the superlative degree, such as "very," when the positive is of sufficient forcefulness; bringing the whole of the essay into a symmetrical and harmonious entity. The editor may, but should not be required to, do a part of this revision; but where the meaning is obscure is not justified in assuming an intent which the author has not expressed with precision.

Aside from the altruistic motive of adding to the sum of knowledge, a legitimate object in writing for publication is to enhance the professional reputation of the writer by bringing his work to the attention of the profession, incidentally inducing other physicians to refer him patients or consult with him. The Journal reaches a far larger number of the leading men in medicine in Georgia than any other medical publication. If a man's discoveries appear in foreign or special journals he will reach a smaller number of readers in the territory from which his clientele is drawn. If his contributions to his local journal are carelessly and slovenly prepared, or consist simply of rehashes of textbook matter, they will defeat this object and injure his reputation where such injury will be most detrimental to him.

The existence of the Journal is justified only by the benefits that may accrue from it to its contributors and readers; and it is earnestly urged that the members of the Medical Association of Georgia publish in it the best, and only the best, work of which they are capable.

McCURRY.



## A MESSAGE FROM THE BUSINESS MANAGER.

Smollett is credited with the saying, "out with him who serves me with mere words, but he who regaleth me with facts giveth me real pleasure." It is my object to serve you with facts about your State Medical Journal.

In 1849 the Medical Association was organized as an independent organization. Annual meetings were held and the proceedings were published in book-form each year.

The Association continued under this regime until 1911, when a monthly publication—The Journal of the Medical Association of Georgia—was started. The object of this Journal is to be the mouth-piece for the members of the Association in promoting medical science and good fellowship amongst themselves.

Dr. W. C. Lyle was elected Secretary and for ten years served you faithfully. During his time of service the Journal passed through many hard places and during the last two years of his service, because of the war, strikes, etc., the publication was often very late. So much so until when Dr. Bunce was elected Secretary, and I was appointed Business Manager, the publication was three months behind.

During the first two months of our service we published five issues of the Journal, bringing the publication up to date. We then increased the size of the Journal from 32 pages to 64 pages.

During the years 1921 and 1922 we have published a 64 page Journal each month. The Journal has been published on a good quality of paper and has been mailed out each month on regular mailing date. We have had some trouble with our publishers due to strikes, but this has not prevented the Journal from being mailed out on regular schedule time. 1800 copies of the

Journal have been printed each month. Much time, work and patience have been spent by your Editor, and the Publication Committee, in selecting and editing the contents of your Journal. Much care has been taken in trying to keep the mailing list of the members of the Association up to date.

Because of the size of the Journal in 1919, and the delay in publication, the advertising department was only paying 20% of the cost of publishing the Journal. During 1921 and 1922 the advertising department paid 82 per cent of the cost.

## A Few Suggestions for a Better Journal.

The Journal of the Medical Association of Georgia is owned and controlled by the Association. Therefore, more personal attention should be given by each individual member of the state association in helping to collect news items, county society reports, proceedings of district meetings, notices of births, deaths, etc. Members sending in such reports will aid the Editor and Business Manager very much by seeing that they are well written and, when possible, typewritten, double-spaced with wide margin.

If you expect to receive your Journal regularly, it is absolutely necessary for you to notify the Business Manager of all changes of addresses, giving old and new addresses, stating county society of which a member and when you do not receive your Journal.

Lend your assistance in securing advertising by referring to ads in the Journal when ordering anything advertised in your Journal. Buy from book concerns and pharmaceutical houses which advertise in your Journal, or if they do not advertise, suggest to their detail men that their business might be better if they advertised in The Journal of the Medical Association of Georgia. Pharmaceutical preparations advertised in your Journal have been passed on by the Council on Pharmacy and Chemistry and are, therefore, standard and re-

liable products. Other ads are censored very closely before acceptance. So you are safe in recommending any article or preparation advertised in your Journal.

When soliciting a member for your county medical society, do not be content with telling him it is a good thing and that he should come in. Stop, take time, and explain that the county medical society is the unit of all medical organization. You cannot become a member of the Medical Association of Georgia without first being a member of your county society. You must be a member of your State Medical Association to become a member of the Southern Medical Association, and your State Medical Association is a component part of the A. M. A. Therefore you must be a member of the state association before you can become a member or a Fellow of the A. M. A. The fact is you are nothing in the medical world, and can't be anything, until you become a member of your county medical society.

In recommending and making insurance appointments, etc., one of the first questions asked is, are you a member of your county and state society. By being a member of your state association you receive the Journal, which is a 64 page monthly publication owned and controlled by its members, and a publication which is a credit to any state association in the union. And as a member of the Medical Association of Georgia you receive the full benefit of the medical defense feature which protects against malpractice suits. If this is not effective it is time to take stock of ourselves and see if our county society is a worthy example. In most doctors there is something good and the reason you do not like Bill Jones is because you do not know him. Note what he has to say in the Journal. Go with him to your county, district and state medical meetings and learn to know him as a brother. You will soon find that there is some good in the worst of us.

M. C. PRUITT.

## SCREVEN COUNTY SOCIETY TAKES LEAD.

News has been received from Dr. Louis Hannah, the efficient and progressive Secretary of the Screven County Medical Society, of the formation of a free clinic by his Society for the care of charity cases in Screven County. On account of the rapid increase in typhoid fever throughout the country, this Society is urging every citizen of Screven County to take typhoid vaccine, and in order to facilitate this members of the Society will give the vaccine, as furnished by the State Board of Health, without charge on their regular clinic days. In addition to giving typhoid vaccine, they have made provision for holding regular clinics for the diagnosis and treatment of all charity cases in the county. Children, whose parents are unable to pay regular fees, showing defects upon examination in their schools, should be referred to this clinic, so that the County Society may make provision to have these defects corrected.

Indeed, Screven County has taken the lead, and if every other county in the state will do likewise, there will be no necessity for outside interference with the health problems of a county. We think this is the ideal plan for the solution of the tonsil and adenoid clinics as fostered by the State Board of Health. That is all charity cases in each county should be referred to the clinic conducted by the County Medical Society and when any problem arises that cannot be handled by members of the Society, then they should select someone to represent them in the correction of defects which they are not prepared to handle. This will eliminate all friction and will leave no excuse for so-called "state medicine."



## MINUTES

House of Delegates, Wednesday, May 3,  
1922, 8:30 A. M.

Upon advice from the chair that the present clause in the By-Laws in reference to medical defense is indefinite and should be changed, and that other sections need revision, Dr. W. A. Mulherin offered a motion that a committee be appointed to nominate a commission to revise and make any necessary changes in the Constitution and By-Laws (to report at the next annual meeting). The motion was amended by naming the President and Secretary as members of the commission. The President appointed Dr. W. E. McCurry, Chairman, Dr. O. H. Weaver and Dr. E. T. Coleman on the nominating committee.

The motion offered last year for the appointment of a parliamentarian was ruled out of order by the Chair.

Dr. W. F. Wells, Chairman of the Committee on Scientific Work, reported for that Committee by submitting the program for the present meeting. He also reported that there had been a full meeting of the Committee to consider every paper, and that the By-Laws had been followed as nearly as possible in making up the program.

Upon motion, the report of the Committee (the program) was adopted. This action was ratified at the general session on Wednesday afternoon.

After discussion by Doctors McCurry, Mulherin, Powell, White, Reavis, Grady Clay, Person, Allen and Moore, the following resolution offered by Dr. George R. White, was adopted:

Be it resolved that the House of Delegates recommend that the Committee on Scientific Work make available on the program of the State Association space for two papers from each Councilor district; that a definite time be assigned for reading and discussion of each of these papers, and they be given precedence over all other business. The said papers are to be selected by the Committee on Scientific Work, and, in case a writer does not respond when his name is called, some paper will be substituted and the schedule not deranged.

The Chair ruled that the Committee on Scientific Work has charge of the scientific work, and that this resolution is only a recommendation and not a law, the Committee to be governed by the By-Laws.

Adjourned.

Thursday, May 4, 8 A. M.

Called to order by the President. The minutes of the previous meeting were read and approved.

Dr. A. J. Mooney submitted the following amendment to Article IX. of the Constitution and moved its adoption, which motion was seconded.

To amend Article IX. as follows:

"Sec. 1. The officers of this Association shall be a President, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian and twelve Councillors, one from each congressional district.

Sec. 2. The officers, except the Secretary-Treasurer, Parliamentarian, and Councillors, shall be elected annually. The terms of the Councillors shall be for three years, as may be arranged, viz., the first second, third and fourth, for three years; those for the fifth, sixth, seventh and eighth, for two years; those for the ninth, tenth and eleventh for one year (1905), and the twelfth to be elected with the ninth, tenth and eleventh for the full term of three years. The Secretary-Treasurer shall be elected for a term of five years, and the Parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed."

Discussion by Doctors H. M. Moore, E. T. Coleman, B. H. Wagnon, J. R. Burdett, H. R. Shack, L. C. Allen, C. W. Roberts, R. T. Dorsey, W. E. McCurry, C. T. Nolan, W. F. Reavis, M. A. Clark. Both sections of the proposed amendment were adopted.

An amendment to Section 5 of the By-Laws was proposed by Dr. L. C. Allen, as follows:

Resolved that Sec. 5 of the By-Laws be amended by striking out the words "February 1st" where they appear in said section and substituting in lieu thereof the words "April 1st."

This was adopted.

A resolution was offered by Doctor G. W. Quillian to amend Chapter 6, Section 2, of the By-Laws, as follows:

Resolved, That Chapter 6, Section 2, of the By-Laws of the Medical Association of Georgia be amended by striking out paragraph 2, substituting therefor the following:

"The Committee on Scientific Work shall invite each year one distinguished visitor to deliver an address upon a scientific topic, this address to be known as the 'Crawford W. Long Oration'. This By-Law shall not prohibit this Committee from inviting one additional distinguished visitor, a member of the National Organization, to deliver an address or read a paper at any annual meeting. No such address or paper shall exceed the time limit fixed by the Committee on Scientific Work."

Discussed by Dr. G. R. White and Dr. L. C. Allen. It was lost when put to vote.

The committee appointed to nominate members of a commission for revision of the Constitution and By-Laws made the following report, which was adopted:

"Your committee appointed to nominate three members, who with the President, Secretary and Attorney of the Association, shall form a commission for revision of the Constitution and By-Laws of the Association,

do hereby nominate Drs. M. A. Clark, George R. White and W. C. Lyle."  
W. E. McCURRY, Chairman.  
E. T. COLEMAN,  
O. H. WEAVER.

The House of Delegates then adjourned.

**Thursday, May 4, 6 P. M.**

Call to order."

Endorsed the Gorgas Memorial Institute.

Mr. Ellis appeared before the House of Delegates and asked that it endorse the School of Public Health at Emory. This was done.

Reports of the Committees on Public Policy and Legislation and on Medical Defense adopted.

It was voted to appropriate \$3,000 for the Committee on Medical Defense.

The report of the Cancer Commission was adopted. The request of the Commission that women be appointed as members was ruled out of order. The request that the Secretary have printed 5,000 copies of "Facts About Cancer" was referred to the Council with the recommendation that the appropriation be made if they considered the Association financially able.

Reports of Committees on Crawford W. Long Statue and Health and Public Instruction adopted.

There was no report from the Committee on Hospitals.

The Secretary was authorized to renew the charter of the Association.

The Secretary-Treasurer's report was read and adopted.

### FINANCIAL STATEMENT.

Balance on hand, May 1, 1921:

On deposit, Citizens and Southern Bank, Atlanta.....	\$ 4,664.89
Amount received from all sources to May 1, 1922.....	11,361.36

Total .....	\$16,026.25
Total expenditures as per vouchers below.....	11,339.15

Balance in Citizens and Southern Bank, May 1, 1922.....	\$ 4,687.10
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### EXPENDITURES AS PER VOUCHERS ATTACHED.

Old vouchers:

186—Columbia Graphophone Co. (Shaving ticket).....	\$ 3.00
187—W. L. Moon (Reported in previous statement).....	
188—St. Louis Button Co. (Buttons for meeting).....	27.00
189—Southern Engraving Co. (Cuts for Journal).....	3.00
190—American Medical Association (A. M. A. Directory).....	12.00
191—Two-Cent Letter Co. (Form letters) .....	18.38
192—Dr. V. O. Harvard (Councilor).....	60.64
193—Dr. W. E. McCurry (Councilor).....	31.01



## New vouchers:

1—Dr. H. H. Martin (Delegate to A. M. A., 1918-1919)	200.00
2—Geo. C. Rogers (Stamps)	20.00
3—Two-Cent Letter Co. (Form letters)	2.50
4—Dr. H. W. Terrell (Councilor)	19.00
5—Horne Desk and Fixture Co. (Division guides and folders)	7.40
6—Byrd Printing Co. (Printing)	731.95
7—Underwood Typewriter Co. (Repairs)	8.50
8—Lester Book and Stationery Co. (Office supplies)	8.65
9—St. Louis Button Co. (Badges)	1.50
10—Dixie Seal and Stamp Co. (Rubber stamp)	.80
11—Geo. C. Rogers (Mailing Journals)	12.89
12—Allen H. Bunce (Salary for May and June)	300.00
13—Geo. C. Rogers (Postage)	20.00
14—Lester Book and Stationery Co. (Envelopes)	.35
15—Dr. J. O. Elrod (Councilor)	38.50
16—Horne Desk and Fixture Co. (Book case)	39.00
17—Byrd Printing Co. (Printing Journals)	312.32
18—Mrs. A. F. Lee (Making new name plates)	24.00
19—Western Union Telegraph Co. (Telegrams, Pub. Pol. and Leg.)	56.20
20—Allen H. Bunce (Salary for July)	150.00
21—Dr. J. C. Bennett (Telegram Chiro, bill)	1.03
22—Dr. Geo. Y. Massenburg (Telegram Chiro, bill)	1.05
23—Edward Cruselle (Public Policy and Legis.)	20.75
24—Wm. Whitford (Official stenographer)	285.57
25—Dr. J. E. Wright (Telegrams)	2.68
26—Geo. C. Rogers (Mailing Journals)	10.00
27—Southern Engraving Co. (Cuts for Journal)	10.50
28—Dr. R. C. Franklin (Telegram Chiro, bill)	1.05
29—Lester Book and Stationery Co. (Office supplies)	1.40
30—Wachendorff Bros. (Wreath, Crawford W. Long memorial)	10.00
31—Geo. C. Rogers (Postage)	20.00
32—Allen H. Bunce (Salary for August)	150.00
33—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for May and June)	150.00
34—Southern Engraving Co. (Cuts for Journal)	19.00
35—Miss Estelle Houser (Public Policy and Legis.)	2.00
36—J. P. Stevens Engraving Co. (Stationery for president)	22.60
37—Gordon W. Donaldson Co. (Printing)	120.95
38—Byrd Printing Co. (Printing Journals)	389.07
39—Allen H. Bunce (Salary for September)	150.00
40—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for July and August)	150.00
41—Byrd Printing Co. (Printing Journals)	383.82
42—Lester Book and Stationery Co. (Office supplies)	.65
43—Southern Engraving Co. (Cuts for Journal)	17.00
44—Geo. C. Rogers (Postage)	40.00
45—Geo. C. Rogers (Postage)	2.00
46—Miss Willie Moon (Special Steno. work)	24.00
47—Addressograph Co. (Ink for Addressograph)	.90
48—Byrd Printing Co. (Printing)	175.00
49—Byrd Printing Co. (Printing Journals)	292.00
50—Allen H. Bunce (Salary for October)	150.00
51—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for September and October)	150.00
52—Reeves Studio (Cuts for Journal)	7.50
53—Sherwin-Williams Co. (Rubber brush for Addressograph)	.90
54—Southern Engraving Co. (Cuts for Journal)	59.00
55—Geo. C. Rogers (Postage for mailing Journals)	10.00
56—Byrd Printing Co. (Killed composition)	6.15
57—Geo. C. Rogers (Postage for Journal, etc.)	40.00
58—Dr. M. C. Pruitt (For drayage for Journal)	5.00
59—T. T. James (Attorney's fee Medical Defense)	100.00
60—Messrs. Bryan and Middlebrooks (Attorney's fee, Medical Defense)	46.41
61—L. M. Davies & Co. (½ doz. typewriting ribbons)	5.00
62—Miss Willie Lee Moon (Special Steno. work)	21.00
63—Mrs. E. H. Waynant (Special work Cancer Commission)	2.00
64—Miss Lucy Howard (For postage Cancer Commission)	14.00
65—Allen H. Bunce (Salary for November)	150.00
66—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for November)	75.00
67—Byrd Printing Co. (Printing Journals)	296.00
68—Travis & Travis (Attorney's fee, Medical Defense)	200.00
69—Byrd Printing Co. (Printing Cancer Bulletins)	127.50
70—Byrd Printing Co. (Printing Journals and Constitution and By-Laws)	395.50
71—Dr. E. B. Claxton (Refund fees paid attorneys)	490.00

72—Geo. C. Rogers (Mailing Journals).....	10.00
73—Dr. C. K. Sharp (Councilor).....	21.23
74—Dr. L. C. Allen (Councilor).....	8.52
75—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for December).....	75.00
76—Allen H. Bunce (Salary for December).....	150.00
77—Dr. T. C. Thompson (Councilor).....	26.50
78—Lester Book and Stationery Co. (Office supplies).....	.50
79—Dr. J. L. Campbell (Cancer bulletin).....	26.35
80—Mrs. F. W. Goodroe (Addressing envelopes for Journals).....	13.00
81—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for January).....	75.00
82—Allen H. Bunce (Salary for January).....	150.00
83—Geo. C. Rogers (Postage).....	10.00
84—Gouedy Multigraphing Co. (Form letters to County Secretaries).....	1.45
85—Miss Willie Lee Moon (Special Steno. work).....	15.00
86—Byrd Printing Co. (Printing Journals).....	300.00
87—Southern Engraving Co. (Cuts for Journal).....	6.00
88—Underwood Typewriter Co. (Repairs).....	1.00
89—Beck & Gregg Hardware Co. (Pair shears for Journal).....	2.50
90—Miller's Book Store (Staple machine).....	2.80
91—Miss Willie Lee Moon (Special Steno. work).....	2.50
92—Messrs. Bryan & Middlebrooks (Attorney's salary for year 1921).....	1,000.00
93—Geo. C. Rogers (Postage).....	10.00
94—Parker & Parker (Attorneys' fee).....	75.00
95—Geo. C. Rogers (Postage for mailing Journals).....	10.00
96—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for February).....	75.00
97—Allen H. Bunce (Salary for February).....	150.00
98—Geo. C. Rogers (Postage).....	20.00
99—Gordon W. Donaldson Co. (Membership Cards).....	22.50
100—Foote & Davies (Office supplies, letter files).....	3.30
101—Byrd Printing Co. (Printing Journals).....	339.06
102—Lester Book & Stationery Co. (Office supplies).....	3.25
103—Messrs. Bryan & Middlebrooks (Attorneys' fees).....	24.57
104—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for March).....	75.00
105—Allen H. Bunce (Salary for March).....	150.00
106—Mrs. Dahlis McFall, Librarian (21 copies back issues of Journals).....	6.30
107—Geo. C. Rogers (Postage).....	20.00
108—Kendrick & Williams (Printing Journals).....	242.66
109—Addressograph Company (Office supplies for Addressograph).....	1.20
110—Webb & Vary Co. (Cards for president, Dr. E. C. Thrash).....	70.52
111—Lester Book & Stationery Co. (Office supplies).....	.40
112—Miller's Book Store (Office supplies).....	.40
113—Wachendorff Bros. (Floral offering for Dr. M. F. Morris).....	12.00
114—Southern Engraving Co. (Cuts for Journal).....	17.75
115—Mrs. F. W. Goodroe (Addressing envelopes for Journal).....	17.50
116—Two-Cent Letter Co. (Form letters).....	4.00
117—Kendrick & Williams (Printing Journals).....	289.60
118—Geo. C. Rogers (Postage).....	20.00
119—Geo. C. Rogers (Mailing Journals).....	10.00
120—Allen H. Bunce (Salary for April).....	150.00
121—Allen H. Bunce (Steno-bookkeeping, office space, clerical work, etc., for April).....	75.00
122—Messrs. Bryan & Middlebrooks (Attorneys' fee—see voucher).....	148.97
123—Dr. C. K. Sharp (Councilor).....	18.74
124—Dr. L. C. Allen (Councilor).....	9.25
125—Kendrick & Williams (Printing reprints as per voucher).....	12.00
126—Dixie Seal & Stamp Co. (Rubber Stamp).....	1.10
127—Geo. C. Rogers (Postage).....	20.00
128—Southern Engraving Co. (Cuts for Journal).....	6.00
129—Two-Cent Letter Co. (Form letters).....	4.50
130—The Vidalia Advance (Stationery, Dr. T. C. Thompson, Councilor 12th District).....	6.50
131—Kendrick & Williams (Credential Cards).....	6.25
132—Kendrick & Williams (Printing Journals).....	294.40
Debit slips from bank:	
May 26, 1921, Debit slip (Three checks returned N. S. F. totaling).....	25.00
November 15, 1921, Debit slip (Error in addition of deposit slip).....	76.51
March 25, 1922, Debit slip (Check returned N. S. F.).....	5.00

TOTAL EXPENDITURES .....\$11,339.15

ALLEN H. BUNCE, Secretary-Treasurer.



The following resolution was adopted:

Resolved, that the Medical Association of Georgia at its seventy-third Annual Convention in Columbus, May 4, 1922, endorse the bill to be introduced before the State Legislature regulating the practice of pharmacy. This bill seeks to elevate the practice of pharmacy by creating a better qualified State Board of Pharmacy, by prescribing educational entrance requirements for students desiring to take up the study of pharmacy, by raising the standard of pharmaceutical schools in the State, and in other ways.

Such a school merits the enthusiastic support of this Association.

Dr. Abercrombie's work (State Board of Health) was endorsed by the House of Delegates, after presentation of report by him of a statistical study of infant and maternal mortality.

A resolution was introduced that the House of Delegates go on record condemning the action of the State Board of Health in sending out literature and questionnaires to midwives, or taking any action that might be construed as encouraging midwifery. This was tabled.

The following resolution was adopted:

Resolved, That the Committee on Public Policy and Legislation be requested to have that part of present "Employers' Compensation Law," which makes \$100 maximum pay for medical services, amended so that the fee shall be commensurate with the service rendered.

The following resolution was introduced:

Resolved, That the Association request the State Board of Health to go slow on its strong tendency toward paternalism, and in the case of operating on children for adenoids and tonsils only those who are unable to pay shall be operated upon. All those able to pay shall be required to pay the usual fee charged in the different communities.

This was referred to the Committee on Health and Public Instruction.

ALLEN H. BUNCE,

Secretary-Treasurer.

### **First Meeting of Council, Tuesday Night, May 3, 8 P. M.**

The Council was called to order by the Chairman, Dr. V. O. Harvard.

The minutes of the previous meeting were read and adopted.

Those present were:

Dr. Chas. Usher, First District;

Dr. V. O. Harvard, Third District;

Dr. J. F. Lunsford, Vice-Councilor, Third District;

Dr. W. R. McCall, Fourth District;

Dr. J. O. Elrod, Sixth District;

Dr. E. T. Gibbs, Vice-Councilor, Ninth District;

Dr. W. A. Mulherin, Tenth District.

Dr. T. C. Thompson, Twelfth District.

Absent:

Dr. C. K. Sharp, Second District;

Dr. C. W. Roberts, Fifth District;

Dr. M. M. McCord, Seventh District;

Dr. W. E. McCurry, Eighth District;

Dr. L. C. Allen, Ninth District;

Dr. B. H. Minchew, Eleventh District.

Each councilor present gave a detailed report of the status of the membership in his district. Reports from Drs. Sharp, McCord, McCurry and Minchew were read by the Secretary since they were unable to be present but had sent in their written reports. Dr. Gibbs reported for the Ninth District in the absence of Dr. Allen.

Dr. McCurry sent in the following report from the Publication Committee:

### **Report of Committee on Publication of Journal.**

Your committee on publication of the Journal submits the following report:

Each of you has received the issues of the Journal as they appeared and are able to form your own judgment as to whether there has been improvement. No effort has been made to increase the number of pages of reading matter; but an intensive effort has been made to improve its quality. This has involved quite a bit of work, for the reason that essayists almost uniformly neglect to give their contributions careful revision. In a few instances it has been necessary to emasculate papers; in

others practically to re-write them; and in even more numerous instances to decline publication. This has caused resentment upon the part of some contributors, though it is difficult to understand why a man should desire a poor paper published over his signature.

There has been an increase of about 15 per cent in the amount of advertising carried, and the Journal is now practically on a self-supporting basis. A little co-operation upon the part of members in insisting on buying goods advertised with us would enable us to increase the revenue from this source materially. Your committee requests that each councillor take up the matter with the representatives of firms now here with exhibits; also that each one get as many members as possible to do the same.

Your committee recommends that the editor be authorized to subscribe to a reliable press clipping bureau in order that as many personal news items relating to the activities of the members of the profession over the state as are obtainable may be carried in the news columns.

Your committee desires to commend your editor and business manager for their untiring and efficient labors in behalf of the Journal, and their enthusiastic efforts to increase its value to the association.

W. E. McCURRY,

C. W. ROBERTS.

Dr. M. C. Pruitt, Business Manager of the Journal, sent in the following report:

#### REPORT OF JOURNAL MEDICAL ASSOCIATION OF GEORGIA FOR YEAR MAY 1st, 1921 TO APRIL 30th, 1922.

1. During the year 1921-1922 we have published a 64-page Journal each month. The Journal has been published on a good quality of paper and mailed out each month on regular mailing date. We have had some trouble with our publishers due to strikes, but this has not prevented the Journal from being mailed out on regular schedule time. We have had printed 1800 copies of the Journal per month. Much time, work and patience has been spent by

your Editor, Dr. Allen H. Bunce, in selecting and editing the contents of your Journal. Much care has been taken in trying to keep the mailing list of the members of the Medical Association of Georgia up to date.

2. Cost of Journal: It has cost \$403.79 per month to publish the Journal, including the Educational Propaganda and Programs for annual meeting, etc., of \$4,845.47 for the year.

3. Amount charged for advertising per year is \$3,978.39. This averages \$331.53 per month.

4. Amount collected for advertising \$3,102.47.

5. Amount outstanding for advertising \$875.92.

Most of the outstanding accounts for advertising on the books will be collected during the ensuing year. Collections for advertising have not been as good this year as last, as we had less than \$200.00 outstanding on books at last annual meeting, against \$875.92 this year.

#### Suggestions for a Better Journal.

1. More personal attention should be given by each individual member of the State Association in helping to collect news items, county society reports, district meetings, notices of births, deaths, etc. Members sending in such reports will aid the Editor very much by seeing that they are well written before sending in.

2. Lend your assistance in securing advertising by referring to ads in Journal when ordering anything advertised in your State Journal. Buy from book concerns and Pharmaceutical houses advertising in your Journal, or if they do not advertise in your Journal, ask them why and suggest that their business might be better if they did advertise in the Journal.

3. Notify Business Manager of all changes of addresses, giving old and new address, stating county society of which a member.

Notify Business Manager when you do not receive your Journal.

M. C. PRUITT,

Business Manager The Journal.



Dr. M. A. Clark, Chairman of the Committee on Medical Defense, appeared before the Council upon invitation and gave a summary of the work accomplished by his committee during the past year. He stated that his committee would request the House of Delegates to appropriate \$3,000.00 for the use of the Committee on Medical Defense. Since all expenditures must be approved by the Council he wished the members to consider this matter. The Council unanimously approved the appropriation for the use of this committee and expressed its sincere appreciation of the faithful and efficient work done by its members.

A report of the financial status of the Association was presented by the Secretary-Treasurer. Vouchers for all expenditures were submitted.

The Chairman appointed the following Auditing Committee to audit the books of the Secretary-Treasurer: Drs. Thompson, McCall and Usher.

They subsequently reported as follows:

"We the committee appointed by the Chairman of the Council, Dr. V. O. Harvard, to audit the books and accounts of the Secretary-Treasurer, find them correct.

(Signed)

"T. C. THOMPSON, Chairman;

"W. R. McCALL,

"CHAS. USHER.

"May 3, 1922."

The Chairman then announced the appointment of the following members of the Publication Committee for the ensuing year: W. E. McCurry, Chairman; W. A. Mulherin, T. C. Thompson.

A vacancy having occurred on the Committee on Medical Defense through the expiration of the term of Dr. E. E. Murphy, the Council elected Dr. E. C. Thrash as his successor for the term of five years.

There being no further business the Council adjourned.

V. O. HARVARD, Chairman.

A. H. BUNCE, Secretary.

## Second Meeting of the Council, Friday, May 5, 4 P. M.

Dr. V. O. Harvard, of Arabi, was elected Chairman.

The Council passed motion to appropriate \$100.00 to the Cancer Commission to print literature.

V. O. HARVARD, Chairman.

A. H. BUNCE, Secretary.

## Minutes of General Session Continued From June Issue, Page 250.

The following scientific program was then carried out:

### Scientific Papers.

1. Compensation, Fred Hames, M. D., Atlanta, Ga.

2. A Diagnostic Aid of Unquestionable Value, A. G. Kelley, M. D., Atlanta, Ga.

3. Have We Drifted Too Far? S. A. Visanska, M. D., Atlanta, Ga.

4. Syphilis of the Nervous System, N. M. Owensby, M. D., Atlanta, Ga. (Papers 4 and 5 discussed together.)

5. Trophic Disturbances of the Lower Extremities in Relation to Syphilis, S. J. Sinkoe, M. D., Atlanta, Ga.

6. The Mental Disease Problem, Geo. L. Echols, M. D., Milledgeville, Ga.

7. Influenza at Fort Benning, Major Alvin J. Bayley, Ft. Benning.

8. Observations and Data Upon the Examinations of 735 Ex-Service Men, W. H. Lewis, M. D., Rome, Ga.

At the meeting on Wednesday afternoon, May 3rd, the Chair called attention to the fact that Doctors L. O. Mauldin and M. H. Wyman were present as delegates from the South Carolina Medical Association, and the privileges of the floor were extended to them.

### Wednesday, 4:00 P. M.

9. The Enteroptotic Abdomen—Development Factors and Treatment, Jno. B. Fitts, M. D., Atlanta, Ga.

10. Pre-Operative and Post-Operative Studies in Goiter, Chas. E. Waits, M. D., Atlanta, Ga.

11. Epidemiological Work in the Army, Lt.-Col. O. G. Brown, Ft. Benning.

12. Diagnosis and Treatment of Tumors of the Breast, J. L. Campbell, M. D., Atlanta, Ga. (Papers 12 and 13 discussed together.)

13. Tumors of the Breast, Geo. R. White, M. D., Savannah, Ga.

14. Complete Versus Sub-Total Hysterectomy, Garnett W. Quillian, M. D., Atlanta, Ga.

**Wednesday, 7:30 P. M.**

**Symposium on X-Ray and Radium Therapy  
(Papers 15 to 19, inclusive)**

15. The Use of Radium in Treatment of Cancer of the Cervix, O. D. Hall, M. D., Atlanta, Ga.

16. Treatment of Leukemia by Means of the X-ray, J. W. Landham, M. D., Atlanta, Ga.

17. Results From Six Months' Experience With Radium, W. L. Cooke, M. D., Columbus, Ga.

18. The X-ray Treatment of Uterine Hemorrhage and Fibroid Tumors, Jno. S. Derr, M. D., Atlanta, Ga.

19. Mention of Various Diseases In Which X-ray Treatment Is of Most Value, What Is to Be Expected of X-ray in These Cases, and Salient Points the General Practitioner and Surgeon Should Know and Observe Concerning X-ray Treatment, Wm. F. Jenkins, M. D., Columbus, Ga.

**Thursday, 9 A. M.**

**Symposium on Abdominal Surgery.**

**(Papers 20 to 23, inclusive)**

20. Conservatism in Surgery, Floyd W. McRae, Jr., Atlanta, Ga.

21. Acute Conditions of the Abdomen Requiring Surgical Interference, L. C. Fischer, M. D., Atlanta, Ga.

22. The Surgery of Gastric Cancer, Frank K. Boland, M. D., Atlanta, Ga.

23. Surgical Conditions of the Right Side of the Abdomen, "So-Called Chronic Appendix," W. F. Westmoreland, M. D., Atlanta, Ga.

**Symposium on Gall Bladder.**

**(Papers 24 to 26, Inclusive)**

24. What Clinical Manifestations Are Sufficient to Justify Diagnosis of Gall

Bladder Trouble? W. P. Nicholson, M. D., Atlanta, Ga.

25. A Clinical Survey of Present Results Attained by Non-Surgical Drainage of Pathologic Gall Bladders, Geo. M. Niles, M. D., and H. N. Kraft, M. D., Atlanta, Ga.

26. Cholecystectomy Versus Cholecystostomy, T. C. Davison, M. D., Atlanta, Ga.

President's annual address at noon, Thursday. (Address in full appears elsewhere).

**Thursday, May 4th, 12 M.**

Dr. E. T. Coleman: In accordance with our program, I am happy to announce that the president will now deliver his annual address. I present the president, Dr. E. C. Thrash.

Dr. E. C. Thrash: I want to say to you in a preliminary statement that during this year you have broken several records. Probably the most important thing is that there have been thirty papers on the program up until noon today, and all of these papers have been completed, each writer responding when called, except three, and two of them are here ready to read theirs, making an absence of only one out of thirty. I think this is remarkable, because it shows the enthusiasm and interest that men are taking in the Association. In years past it has been the custom more or less for men to put their names on the program because they liked to see them in print, but now when a man is put down for a paper he feels it incumbent upon him to be present at the meeting.

In spite of the fact that we have been confronted this year with the most disastrous year in the history of the South, we have by far the largest membership in the history of the Association. We have had probably the biggest attendance at any meeting outside of the city of Atlanta. Now what does this mean? It means that we are progressing in medicine, that we are struggling to learn and to accomplish something, that we are organizing for a fraternalistic spirit, and it means that the medical men of Georgia are getting together in a way that will mean much to science, much to ourselves, and much to



the public, whom, in the end, it is our effort to help.

Your president has selected a scientific subject for his essay, the title of which is: Read address.

**Thursday, 2 P. M.**

**Symposium on Diseases of Children.**

**(Papers 27 to 31, Inclusive)**

27. Over-Medication in Infants and Children, B. Bashinski, M. D., Macon, Ga.

28. Complemental Breast Feeding, Linton Gerdine, M. D., Athens, Ga.

29. Antitoxin and Intubation in Diphtheria, W. N. Adkins, M. D., Atlanta, Ga.

30. Control of the Common Contagious Diseases, Jas. A. Wood, M. D., Atlanta, Ga.

31. The Importance of a State Pediatric Society as a Component Part of State Medical Association, W. A. Mulherin, M. D., Augusta, Ga.

32. Some Surgical Facts Gleaned From Personal Experience, H. Stokes Munroe, M. D., Columbus, Ga.

33. A Review of One Thousand Obstetrical Cases in Private Practice, Marion T. Benson, M. D., Atlanta, Ga.

34. Surgery of the Acute Gall Bladder, W. A. Selman, M. D., Atlanta, Ga.

**Friday, 9 A. M.**

35. Abscess of the Lung With a Report of Seven Cases, J. E. Paullin, M. D., and H. C. Sauls, M. D., Atlanta, Ga.

36. Observations On the Mouth and Dental Arches in the Study of Pituitarism. Lantern Slide Demonstrations, Arch Elkin, M. D., Atlanta, Ga.

37. Cancer of the Stomach—Report of a Case, C. W. Roberts, M. D., Atlanta, Ga.

38. Secondary Effect of Severe Scoliosis on Internal Organs, Theodore Toepel, M. D., Atlanta, Ga.

39. The Ophthalmoscope As An Aid in General Diagnosis, W. C. Lyle, M. D., Atlanta, Ga.

40. Interesting Observations in Cataract Extractions Among Confederate Veterans, Murdock Equen, M. D., Atlanta, Ga.

41. Pemphigus Conjunctivae; Report of a Case. Cecil Stockard, M. D., Atlanta, Ga.

42. The Use of Pituitrin in Abdominal Surgery, J. C. Pate, M. D., Macon, Ga.

43. Accidental Hemorrhage, With a Report of Five Cases, A. C. Wade, M. D., Augusta, Ga.

44. The Role of the Antrum of Highmore in Latent Infections, L. C. Rouglin, M. D., Atlanta, Ga.

45. The Intracutaneous Method of Diagnosis in Hay Fever and Asthma, Hal. M. Davison, M. D., Atlanta, Ga.

46. Birth Control and the Medical Profession, N. Alpert, M. D., Atlanta, Ga.

47. A Consideration of Eye, Ear, Nose and Throat Conditions at Georgia State Sanitarium, With Special Reference to Cataract Operations On the Insane, B. McH. Cline, M. D., Atlanta, Ga.

**Friday, May 5, 3 P. M.**

The following officers were elected:

President—J. M. Smith, Valdosta.

First Vice-President—P. A. Tatum, Columbus.

Second Vice-President—A. R. Rozar, Macon.

Parliamentarian—M. A. Clark, Macon.

Delegate, A. M. A.—W. E. McCurry, Hartwell.

Alternate—Ralston Lattimore, Savannah.

**Councilors.**

First—Chas. Usher, Savannah.

Fifth—W. C. Lyle, Atlanta.

Sixth—J. O. Elrod, Forsyth.

Seventh—M. M. McCord, Rome.

Eighth—H. M. Fullilove, Athens.

Tenth—W. A. Mulherin, Augusta.

Eleventh—B. H. Minchew, Waycross.

It was decided to hold the next meeting of the Association in Savannah.

Dr. Thrash: As retiring president, I want to thank you for the support you have given me. It has been the greatest joy of my life to serve you, and I have served you my best.

The following resolution of thanks was adopted:

WHEREAS, The present meeting of the Medical Association in Georgia has been one of the most successful and most enjoyable in its history.

Be It Resolved,

That the Association extend its sincere thanks to all those who have contributed to its pleasure;

To the officials of Muscogee County for the use of the Court House building;

To the Muscogee County Medical Society, for their untiring services and for the splendid program which they arranged for us;

To the Columbus Chamber of Commerce for the delightful banquet which they served;

To the Kiwanis and Rotary Clubs for their hospitable treatment;

To the newspapers of Columbus for their excellent reports of our meetings;

To the Commanding General and other officers of Camp Benning for their magnificent demonstration;

And last, but not least, to the wives of the physicians of Columbus and to other ladies who assisted them for their charming contribution to our meetings.

Be It Resolved,

That a copy of these resolutions be spread upon the minutes of the meeting and that a copy be sent to each of the Columbus newspapers.

ALLEN H. BUNCE,  
Secretary-Treasurer.

### Sixth District Medical Society.

Sixth District Medical Society held its Semi-Annual meeting, Hotel Elder, Indian Springs, June 14th, 1922. The following program was rendered:

1. Protein Poisoning. Anaphylaxis Allergy—Fred L. Webb, M. D., Macon, Ga.
2. Glaucoma—H. C. Harris, M. D., Macon, Ga.
3. Control of Infection Around the Gall Bladder—W. J. Little, M. D., Macon, Ga.
4. Cancer of the Lip; Its Treatment With Radium—C. C. Harrold, M. D., Macon, Ga.
5. The X-Ray in the Diagnosis of Bone

Tumors—C. D. Cleghorn, M. D., Macon, Ga.

6. Treatment of Acute Alimentary Disturbances of Infancy—T. D. Walker, M. D., Macon, Ga.
7. Report of Some Surgical Conditions Complicating Pregnancy—A. R. Rozar, M. D., Macon, Ga.

At the close of the Scientific Program a resolution was offered and adopted to give a rising vote of thanks to Dr. Elrod for his efficient and effective work as Councillor for the Sixth District. It was also moved and adopted: That the Sixth District Medical Society endorse the stand taken by the Councillors of the Medical Association of Georgia in condemning the action of the Board of Health in visiting different portions of the state with a Corps of Doctors and Assistants and removing tonsils and adenoids of the children in the different towns of the state.

The next meeting will be held in November in Griffin. The papers of the program were rather generally discussed and the meeting fairly well attended, about fifty present. Luncheon was served at the hotel.

### Third District Medical Society.

Third District Medical Society held its Thirteenth Semi-Annual Meeting at Dawson, Georgia, Wednesday, June 14th. Following Scientific Program on Diseases of Children was rendered:

1. Artificial Feeding of Normal Infants—R. R. Hold, M. D., Parrott, Ga.
2. Control of the Communicable Diseases of Childhood—M. F. Haygood, M. D., Atlanta, Ga.
3. Bacillary Dysentery—Jno. T. Moore, M. D., Sycamore, Ga.
4. Diagnosis of Acute Abdominal Conditions in Children—S. P. Kenyon, M. D., Dawson, Ga.
5. Foot Deformities and Their Prevention in Children—Theo. Toepel, M. D., Atlanta, Ga.



6. Report of Councillor—V. O. Harvard, M. D., Arabi, Ga.

Banquet was held at 7:30 P. M., at Dawson Inn by Terrell County Medical Society.

### Eleventh District Medical Society.

Eleventh District Medical Society held its Twentieth Semi-Annual Meeting at Douglas, Georgia, June 20th, 1922. The morning session was held in Court House and afternoon session in large hall at Country Club. The following program was rendered:

Meeting called to order by President, Dr. Frank Bird, Valdosta.

Invocation, Rev. J. C. Blackburn, Douglas.

Address of Welcome in Behalf of the City—Hon. J. J. Willingham, Mayor, Douglas.

Address in Behalf of the County Society, Dr. J. R. Smith, Douglas.

Response to Addresses of Welcome, Dr. L. L. Whiddon, Ocilla.

Address by President of Eleventh District Medical Society, Dr. Frank Bird, Valdosta.

Address by President of State Medical Association, Dr. J. M. Smith, Valdosta.

### Scientific Program.

Some Remarks Regarding the Journal of the Medical Association—M. C. Pruitt, M. D., Atlanta.

Formulas in Diagnosis—Rufus T. Dorsey, M. D., Atlanta.

The Management of Cardiac Cases—Jno. W. Daniel, M. D., Savannah.

Some Considerations of Blood Pressure with Brief Case Reports—J. W. Simmons, M. D., Brunswick.

Foot Deformities in Children and Their Prevention—Theo. Toepel, M. D., Atlanta.

Treatment of Diarrhoea in Children—W. L. Funkhouser, M. D., Atlanta.

Cancer a Curable Disease If Diagnosed Early—J. J. Clark, M. D., Atlanta.

Dysmemorrhoea—T. H. Clarke, M. D., Douglas.

Eclampsia—D. H. Meeks, M. D., Nicholls.

Maternal Mortality—C. A. Witmer, M. D., Waycross.

Prostatic Gonorrhoea—Clarke Quarterman, M. D., Valdosta.

The Present Status of Hospitals and Surgery in South Georgia—A. D. Little, M. D., Thomasville.

When and When Not to Operate in Diseases of Thyroid Gland—C. W. Roberts, M. D., Atlanta.

Anaesthesia in General Surgery—W. M. Folks, M. D., Waycross.

Local Anaesthesia in Nose and Throat Surgery—B. H. Minchew, M. D., Waycross.

Report of Eye Cases—A. S. M. Coleman, M. D., Douglas.

Barbecue was served at 8:30 at Country Club by the Coffee County Medical Society. Business session preceded dinner.

### Ware County Medical Society.

Ware County Medical Society in conjunction with Waycross Free Clinic and State Tuberculosis Association held their meeting on June 7th, 1922, at Waycross. The following program was rendered:

Wednesday morning, Clinic Rooms, Municipal Building, 10:00 to 12:30 o'clock.

Tuberculosis clinic. Examination of patients by visiting physicians, assisted by local physicians.

Wednesday afternoon, Lyric Theatre, open to public, 2.30 o'clock.

Lecture—"The Status of the Fight on Tuberculosis," by James P. Faulkner, managing director Georgia Tuberculosis Association, Atlanta.

Lecture—"Tuberculosis," Dr. John W. Daniels, Savannah.

Moving Pictures on Tuberculosis (Government Films) by State Tuberculosis Association.

Wednesday evening, 8 o'clock, R. R. Y. M. C. A.

Paper on Tuberculosis, Dr. E. C. Thrash, President State Tuberculosis Association.

Paper on Tuberculosis, Dr. J. M. Anderson, Member State Tuberculosis Association, Columbus.

## SCREVEN COUNTY MEDICAL SOCIETY, SYLVANIA, GA.

At the regular meeting of the Screven County Medical Society, held May 25, in view of statistics of the Georgia State Board of Health showing a recent increase in the number of cases of typhoid fever, a resolution was adopted, whereby free administration of the complete cause of typhoid vaccine (including free vaccine) is available to every individual who is unable to pay the regular fee for this protection.

Beginning June 6, these treatments will be given every week—on Tuesdays only—and applicants are at liberty to call on any member of the Society they may elect for this service. Likewise, Toxin-Antitoxin treatment, for the prevention of diphtheria, may be obtained by those who will pay cash for the cost of this serum—which is only a nominal fee.

In addition to the above service, the Society has established a Free Clinic for the benefit of those who are unable to pay for usual medical attention. These clinics will be held on the last Thursday of each month, on which dates the Society holds its regular meetings.

LOUIS HANNAH, M. D., Sec.

## NEWS ITEMS.

The Trustees of Athens General Hospital and the physicians of Athens entertained their honored guest, Dr. Howard A. Kelley, of Baltimore, on June 23-24. Interesting clinics were held by Dr. Kelley on Saturday, June 24th.

## GRADUATING EXERCISES OF THE THOMASVILLE CITY HOSPITAL.

First Commencement Exercises an Epochal Event in the History of Thomasville Held Yesterday Afternoon at the Medical Building—Local Doctors Present.

On Wednesday afternoon at 6 o'clock, in the Medical Building, an epochal event in the history of Thomasville took place. The

occasion was the first commencement exercises of the Thomasville City Hospital.

The physicians of the city marched into the building, followed by the nurses and student nurses of the City Hospital. The graduates were Mrs. Nell-Burrus Litchfield, of Georgia, and Miss Alice M. Lowrymore, of South Carolina. Upon the stage behind the students were eight of the student nurses of the hospital.

Dr. A. D. Little was master of ceremonies, the following being the program:

March—Salut a Pesth—Kowalske, by Miss Jewell Evans.

Prayer, by Dr. W. M. Harris.

Solo, By Miss Alberta Goff.

(a) From the Land of the Blue Sky Water—Cadmar.

(b) Homing.

Address, by Dr. T. M. McIntosh.

Address to graduates, by Rev. I. P. Tyson.

Piano Solo—Sonato Pathetique—Beethoven. By Miss Anna Kolesky.

Oath with graduates, by chief of staff, Dr. A. D. Little.

Presentation of diplomas.

Presentation of pins. Music.

Presentation of flowers. Music.

Benediction and general reception.

Dr. Little presented the diplomas after the graduates had taken the Florence Nightingale oath, which is as follows:

In receiving my diploma, I do hereby solemnly vow:

That I will be loyal to the physician, under whom I serve, as the soldier is loyal to his captain.

That I will be just and generous to all worthy members of my profession, aiding them whenever it shall be in my power to do so.

That I will lead my life and practice my profession in uprightness and honor.

That into whatsoever house I shall enter, it shall be for the benefit of the sick, to the utmost of my power, and that I shall hold myself aloof from all temptation.

That whatever I shall see or hear of the



lives of the men and women within another's household, I will keep inviolate, and this shall be my motto, "Set the watch, Oh, Lord, before my mouth to keep the doors of my lips."

Miss Miller presented the pins symbolizing the profession of the graduates.

After the exercises, punch and cakes were served to the guests.

—Thomasville Daily Times - Enterprise (June 22, 1922.)

### ANNOUNCEMENTS.

Dr. M. Hines Roberts announces the opening of offices, 20 Ponce de Leon avenue, Atlanta, Ga. Practice limited to pediatrics. Telephone, Hem. 2481.

Dr. David B. Hawkins announces the removal of his office from the Hurt Building to 86 Forrest avenue. Practice limited to general surgery and diseases of women.

Dr. and Mrs. Joseph M. Thomas announce the marriage of their daughter, Mary Alice, to Dr. William Lowndes McDougall, on Tuesday evening, June 20th, at 8 o'clock, at the First Methodist Church, Griffin, Georgia.

The Cheston King Sanitarium at Stone Mountain, Ga., city office, 204-205 Peachtree Bldg., Atlanta, Ga., successor to The Cheston King Sanitarium, on Peachtree Road, recently sold to the United States Government, announces its opening for patients desiring rest cure, treatment of nervous and mental diseases, also post-operative cases. Nothing is being left undone in the construction and equipment of this institution that will add to its efficiency and the comfort of its patients. All of its surroundings, together with nature, in one of its seven wonders of the world, has truly made our sanitarium a trysting place for the worn and weary. Address all mail to City Office, 204-205 Peachtree Bldg., Atlanta, Ga.

### COMMUNICATIONS.

#### GEORGIA STATE BOARD OF HEALTH

Office of the Secretary

Atlanta

June 1, 1922.

Dear Doctor:

The annual reports have been made up. The reports which the physicians file on infectious and contagious diseases have been counted and classified by counties and otherwise. Your county does not report any venereal diseases. I wish I could accept the reports as the truth; if I could, how sincerely and how gladly would I congratulate you that your county is free of venereal diseases. It is not true, so I cannot congratulate you; every county in our State has its share of venereals, so it looks very much like someone has not given us the co-operation that we should receive. We try to do our part; will you not see that "Form 1" on venereal diseases is made out and sent in at once when you have a new case. We sent you this book of report blanks and franked envelopes the first of the year.

The law says: "Any physician or other person who makes a diagnosis in or treats a case of venereal disease \* \* \* shall make a report of such case to the health authorities according to such form and manner as the State Board of Health shall direct. \* \* \* Any person who shall violate any of the provisions of this Act \* \* \* shall be guilty of a misdemeanor and upon conviction thereof shall be punished," etc.

We have appealed to you before along these lines; we beg of you now to give us the reports as the laws of our State say you shall.

We might say that one Solicitor General has recently requested a list of delinquents. We will check up your county again pretty soon to see how the reports look as compared to those of your neighbors.

Yours very truly,

JOE P. BOWDOIN, M. D.,

JPB:H

Surgeon (Reserve).

To the Editor:

Georgia has no greater advertisement than her low death rate, for in 1921, of which year the mortality of certain months was audited, as stated in the attached editorial comment, her death rate was 10.4 per 1,000 population, while in 1920 South Carolina showed 14, Virginia and Florida 13 and North Carolina 12, according to the latest printed report of the Federal Census.

For the past two years, as Director of the Bureau of Vital Statistics, I have known certain facts as to Georgia's mortality rates, but I could not publish them, for a statement of such brought the questions "Did you get that out of the Census Report? Is Georgia in the registration area for deaths?"

Georgia is now in the registration area for deaths. Her death rates will be published by the Census Bureau.

Her general, as well as her tuberculosis, cancer and other specific rates, are so low when compared with the neighboring States that the rates will be questioned.

Georgia has no greater pull for people or investments than her good health, as shown by her low mortality rates, but these rates must be based on records, the completeness of which cannot be contradicted.

There is a law in Georgia prohibiting the burial of any dead person until a death certificate has been filed and a burial permit secured. The enforcement of this statute will protect Georgia's records and will establish these rates beyond question. A relaxation of the enforcement of this law will result in more damage to the State than can be estimated in dollars and cents. It is squarely up to those interested in Georgia's growth and development to see that this law is strictly enforced. Outsiders frequently harp on the disregard for law in Georgia, but the enforcement of this law may be checked up at any time to almost mathematical certainty.

I am not discussing death records as a protection against communicable disease or as a basis for the settlement of estates,

insurance and such matters, but the State Bureau of Vital Statistics and the local registrars must have the backing of the prominent citizens in the enforcement of this law which will place Georgia's mortality rates beyond question.

W. A. DAVIS, M. D.,  
Director Bureau of Vital Statistics.

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May 2, 1922.

Dr. Allen H. Bunce, Editor Journal of the Medical Association of Georgia, Atlanta, Ga.

Dear Doctor Bunce:

I note on page 151 of your Journal for April reference to the recognition of chiropractic colleges by the Federal Board for Vocational Education. You ask in your third question on page 152, "What does the American Medical Association think of it, and what did it do to protest against it?"

We could show you a volume of correspondence on this matter, covering the last few years. Immediately following the close of the war our attention was called to the very thing which you are mentioning as of "July 14, 1921." We discovered that returned soldiers were being recommended to various chiropractic colleges—institutions which are in no way comparable with even the lowest-grade medical schools. During the war, the United States army refused to excuse from the draft students enrolled in low-grade medical colleges, yet here we found that the Federal Board, without the knowledge of its medical officer, was recognizing institutions of a still lower type.

We wrote to several individuals before we found the one who could do anything in the matter. Through the medical officer assigned to the Federal Board, an order (Instructions No. 91), was issued February 12, 1920, rescinding the privilege to chiropractic colleges. It was not long, however, before the lay officers of the board again renewed the privilege to the cult colleges.

We have continued to vigorously protest against the practice of this Board, now



known as the Rehabilitation Division of the United States Veterans' Bureau. For some reason or other the lay officers of the Board seem more inclined to listen to arguments from the other side, but we are still hoping to get some action in the matter.

Very truly yours,

N. P. COLWELL, Sec.,

Council on Medical Education and Hospitals.

NPC:NDS

P. S.: Resolutions protesting against the action of the Veterans' Bureau were adopted by the House of Delegates of the A. M. A. at St. Louis, which will be found on page 1710 of the Journal of June 3, 1922.

#### ANNOUNCEMENT OF COMMITTEES, MEDICAL ASSOCIATION OF GEORGIA, 1921-22.

##### Committee on Scientific Work.

Dr. A. G. Fort, chairman . . . . .Atlanta, Ga.  
Dr. Ralston Lattimore . . . . .Savannah, Ga.  
Dr. Allen H. Bunce, Sec. . . . .Atlanta, Ga.

##### Committee on Public Policy and Legislation.

Dr. F. K. Boland, chairman . . . . .Atlanta, Ga.  
Dr. J. M. Spence . . . . .Camilla, Ga.  
Dr. A. J. Waring . . . . .Savannah, Ga.  
Dr. J. M. Smith, Pres. . . . .Valdosta, Ga.  
Dr. A. H. Bunce, Sec. . . . .Atlanta, Ga.

##### Committee on Hospitals.

Dr. T. H. Hall, chairman . . . . .Macon, Ga.  
Dr. A. D. Little . . . . .Thomasville, Ga.  
Dr. W. E. Person . . . . .Atlanta, Ga.

##### Committee on Necrology.

Dr. Chas. A. Greer, Chairman,  
Oglethorpe, Ga.  
Dr. J. M. Anderson . . . . .Barnesville, Ga.  
Dr. Thomas Chason . . . . .Donalsonville, Ga.

##### Committee on Health and Public Instruction.

Dr. Theo. Toepel, chairman . . .Atlanta, Ga.  
Dr. W. A. Mulherin . . . . .Augusta, Ga.  
Dr. F. F. Floyd . . . . .Statesboro, Ga.  
Dr. J. M. Smith, Pres. . . . .Valdosta, Ga.  
Dr. A. H. Bunce, Sec. . . . .Atlanta, Ga.

##### Cancer Commission.

Dr. J. L. Campbell, chairman . .Atlanta, Ga.  
Dr. Geo. R. White . . . . .Savannah, Ga.  
Dr. C. K. Sharp . . . . .Arlington, Ga.

Dr. T. J. McArthur . . . . .Cordele, Ga.  
Dr. J. M. Poer . . . . .West Point, Ga.  
Dr. C. H. Willis . . . . .Barnesville, Ga.  
Dr. W. H. Lewis . . . . .Rome, Ga.  
Dr. H. M. Fullilove . . . . .Athens, Ga.  
Dr. M. B. Allen . . . . .Hoschton, Ga.  
Dr. W. W. Battey . . . . .Augusta, Ga.  
Dr. A. G. Little . . . . .Valdosta, Ga.  
Dr. T. C. Thompson . . . . .Vidalia, Ga.  
**Committee on Crawford W. Long Statue.**  
Dr. L. G. Hardman, Chm. . . .Commerce, Ga.  
Dr. D. W. Freeman . . . . .Valdosta, Ga.  
Dr. J. R. McMichael . . . . .Quitman, Ga.  
Dr. L. A. Baker . . . . .Tifton, Ga.  
Dr. F. W. McRae, Jr. . . . .Atlanta, Ga.  
Dr. J. C. Bennett . . . . .Jefferson, Ga.  
Dr. M. C. Pruitt . . . . .Atlanta, Ga.  
Dr. J. C. Pate . . . . .Macon, Ga.  
Dr. J. M. Anderson . . . . .Columbus, Ga.  
Dr. M. D. Council . . . . .McRae, Ga.

#### DOCTOR MINCHEW IS EXCUSED.

June 5, 1922.

Dr. Allen H. Bunce, Secretary,  
Atlanta, Ga.

Dear Dr. Bunce:

I am very sorry that I shall not be able to attend the meeting of the Council on the night of June 6th, at 8:30 p. m. Like the reasons given by the friends of the rich man for not attending his feast, as recorded in the Bible, I am going to marry a wife in the near future and every day means something to a man who is going to undertake something of this kind. I am planning to attend the Tenth International Congress of Otology in Paris, July 19th to 22nd, and expect to go from Paris to Vienna and attend Fuch's eye clinic for a short period. This trip will be our honeymoon.

I am sure that you and the members of the Council will excuse me from this meeting and allow me to remain in my office and work towards the expenses of this double undertaking.

With this frank confession and good reasons which I am sure you will accept, I am,

B. H. Minchew, M. D.

P. S.: I trust that Dr. J. R. McMichael, of Quitman, whom I have selected as vice-councillor, will be able to attend.

## REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION, 1921-22.

The main business of the committee consisted in fighting the Chiropractic Bill in the State Legislature, in June, 1921. On account of the activity of the supporters of this bill and on account of the financial resources at their command, we were forced to permit the bill to pass with some amendments. The committee feels that the way to fight the Chiropractors and other cults, which may and will arise in the future, is by urging upon the physicians of our State the importance of thorough and sympathetic attention to their patients, so that a minimum number will find occasion to seek relief from irregular practitioners. We have not the financial means, nor are we able to arouse the members of this Association sufficiently to suppress the quacks as fast as they come. The Chiropractic Bill, with the amendments which we succeeded in having passed, is appended to this report.

On January 12th, 1922, three members of the committee, including the chairman and Drs. Bunce and Allen, and Dr. T. F. Abercrombie, Secretary of the State Board of Health, who was appointed by President Thrash to take his place on the committee, visited New Orleans, La., to attend the joint meeting of the legislative committees from the States of Georgia, Louisiana and Mississippi. We attended this meeting at the invitation of the American Medical Association, through the secretary of its Council on Health and Public Instruction, Dr. Frederick R. Green. The railroad fare of the members attending was paid by the American Medical Association. The meeting, presided over by Dr. Green and attended by five committeemen from each of the States of Louisiana, Georgia and Mississippi, was very enjoyable and instructive.

We can not help but feel, however, that in addition to giving us ideas as to the course public legislation is taking in our neighboring States and throughout the Union, the object of the meeting was to

arouse our sympathy for the present administration of the American Medical Association, which at present, is under fire.

Chiropractors and other cults were discussed in detail and we learned that the other States of the country have had, or are having, experiences similar to ours with the same results. We found that the meeting in New Orleans was the fourth of the kind to be held in the country and that other sectional meetings were contemplated so that eventually the whole country would be covered.

Dr. Green informed us that the object of the meeting was to find out from each State just what help it needed, in the line of public legislation, from the American Medical Association, with a view to working out, first, a common policy, and second, a common program on which all could unite. So many matters were discussed that it would be impossible to mention them all in this report. The full minutes of the conference are appended herewith, for the perusal of any member of the Association. We suggest that these minutes be turned over to the succeeding committee on legislation, from this Association, for its information.

A conference of all the legislative committees in the country probably will be called in Chicago some time during the present year.

FRANK K. BOLAND, Chairman.

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## REPORT OF CANCER COMMISSION.

Mr. President and Gentlemen of the Medical Association of Georgia:

Four years have elapsed since the creation of this commission. Each year the interest in Cancer Control has increased. During the first two years we were unable to interest the public in general and the women's clubs in particular, except, for a short time after literature had been distributed or a lecture by some prominent man was to be given. For the past year, especially, conditions have materially changed. The women's clubs are seeking instructions on the subject and will dur-



ing the present month hold a week of special study on Cancer Control.

This is due to two things: 1st, the activities of the Commission, aided by the County Societies, and 2nd, the valuable aid of the American Society for the Control of Cancer.

Soon after the Rome meeting a letter was written to the County Societies urging them to hold a special meeting on Cancer Control. A number of replies were received and we understand quite a number of meetings have been held.

In October Dr. Bunce issued a special bulletin, "Facts About Cancer," as a supplement to the October Journal. This was mailed to every doctor in the State and to all the Protestant ministers.

During the same month Mr. Curtis E. Lakeman, of New York City, Field Secretary of the American Society for the Control of Cancer, came to Georgia and visited Savannah and Atlanta. At his request I mailed a news item to all the newspapers in the State announcing the preparations for Cancer Week and what was expected to be accomplished.

A second letter was sent to the County Societies and two, to the members of the Commission. I received many replies.

A circular letter was sent to all the ministers urging them to give some of the facts contained in the bulletin to their congregation during Cancer Week. Later another letter was sent to the Commission asking them to have a member of the State Association from their district see the local ministers and urge them to make this talk.

Cancer Control literature furnished by the National Society and some prepared by the Commission was sent to all the newspapers in the State, and so far as I can learn, was freely used during "Cancer Week." The Christian Index, Wesleyan Christian Advocate and the Journal of Labor published special articles and the three Atlanta dailies were most active in their effort to cover Cancer Week activities. The Georgian and Constitution wrote leading editorials and the Georgian pub-

lished a splendid cartoon. Special correspondents were detailed to report the lectures and meetings held in Atlanta. In many ways we are especially indebted to the Atlanta Journal for the help given us. The week could not have been as successful as it was without the help of this paper. Other papers throughout the State did splendid work and gave valuable space to the subject.

Several members of the Commission have reported their work to me and the reports have been sent to the National Society. This year Drs. White, Allen, A. G. Little, Sharp and H. M. Fullilove have been especially active and all the other members have done valuable work.

It is impossible in so short a space to mention individually all the doctors who have assisted us by giving lectures and demonstrations; all together, I feel sure that some 75 lectures have been given and 500,000 people in the State have either read something or heard a lecture on Cancer Control during the last twelve months.

It seems wise, owing to the interest that is now being shown by the women's clubs, to comply with their request to furnish them with educational literature.

We hope to arouse a great interest in the subject of Cancer Control by November next. The National Society expects to do much better work this year than it did last, and hopes to reach many more people with the hopeful message, "Cancer can be cured if discovered and treated early."

J. L. CAMPBELL, Chairman.

## REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION.

May 3, 1922.

This committee had a meeting in the office of Dr. W. A. Mulherin, in Augusta, Ga., October 22nd, 1921. Those present were Drs. Mulherin, Floyd and Toepel. As guests present were Drs. Abercrombie and Preston: Dr. Maxwell, dentist, was invited to meet with us.

It was agreed at this meeting that the State Board of Health stamp the approval of the Committee on Health and Public

Instruction on literature sent out by them pertaining to use of toxin-antitoxin.

Georgia Pediatric Society to be asked to furnish pediatricians to demonstrate Schick Tests at District Medical Meetings, and to strongly advocate the use of toxin-antitoxin.

The Committee on Health and Public Instruction to officially appoint members of the Association to act as lecturers on medical subjects in every county and community of the State of Georgia, these lectures to be available to laymen's associations. Such State Associations signifying their willingness to co-operate with the Medical Association of Georgia, be notified of the appointment of these lecturers.

The committee to give special attention to re-codifying the Georgia Sanitary laws, especially as they pertained to infants and children. Georgia Pediatric Society to be asked to appoint a committee to review laws pertaining to infants and children.

The committee to call a joint meeting of committees, consisting of three members each of Georgia Educational Association, Georgia Parent-Teachers' Association, Georgia Federation of Women's Clubs, and our committee, in order to concentrate our efforts on health and public instruction, throughout our State, especially in the schools.

The committee held another meeting at the Ralston Hotel in Columbus, Ga., April 20th, 1922, at which twenty-four people representing fifteen different associations were present.

Drs. Thrash, Abercrombie, Bocker and Mulherin addressed the joint meeting, and the following is a brief outline of their discussions:

That the purpose of the associations represented at the meeting is the combating ignorance concerning not only matters of health, but also subjects of morality, spirituality, civics, etc., and that in carrying out such efforts some overlapping was bound to occur. That health work can particularly be made more effective by all associations concerned by co-ordinating

their efforts and working under the direction of a central body.

It was stated repeatedly that the Medical Association of Georgia stands ready to respond to any cause in assisting, and if necessary, take the lead in carrying out the altruistic purposes of the various associations of the State, and in every way possible help to give scientific knowledge in directing the efforts intended to improve the health of the child.

Emphasis was laid upon the fact that some features of health work only a doctor can handle. A mark of progress in the right direction was noted when the Medical Association of Georgia agreed to have scientific men available for such work as the various organizations needed. It was shown our Association wishes to be helpful and that the medical men of the State are behind this effort to a man.

In the discussion following the four addresses a general expression of approval was voiced at the readiness of the medical doctors of the State to be available to answer calls by the laity in an organized effort to improve health conditions.

A committee consisting of a member each from Georgia Educational Association, Parent-Teachers' Association, and Federation of Women's Clubs, was appointed to draw up a resolution incorporating the progress of this meeting.

The following resolution was offered and adopted by the joint meeting:

Whereas, the action of the Medical Association of Georgia in offering a speakers' service bureau to furnish well-informed speakers in response to calls of lay associations, is considered the best means for disseminating scientific knowledge.

Therefore, we, the committee, recommend that this group resolve itself into a preliminary meeting and that each delegate here present recommend to his Parent Association that one representative be named to serve as a member of a permanent Georgia Council of Public Health Education, or some such body, and that in the near future these representatives meet, to properly and fully co-ordinate work of



all organizations in the State doing health and educational work.

Subject to call of Dr. Toepel, chairman of Public Health and Educational Committee of Medical Association of Georgia.

The committee of Public Health and Education requests of the house of delegates that the committee's actions be approved.

We recommend that the resolution as adopted by the joint committee meeting be approved.

That the Committee of Public Health and Education consist of three members and the president and secretary of the Association.

That the chairman of the Committee of Public Health and Education be the authorized representative of the Medical Association to the meeting of the Georgia Council of Public Health Education.

Respectfully submitted,

W. A. MULHERIN,

F. F. FLOYD,

THEODORE TOEPEL,

Chairman.

#### REPORT OF COMMITTEE ON HEALTH AND PUBLIC EDUCATION.

At the last meeting of the House of Delegates, held in Columbus, the matter of tonsil and adenoid clinics as conducted by the State Board of Health was referred to our Committee on Health and Public Education for the purpose of investigation and solution.

From a letter since received from the Commissioner of Health, Dr. T. F. Abercrombie, it was learned that his office has definitely decided not to organize any more clinics until the Medical Association of Georgia and the State Board of Health have agreed on some plans satisfactory to all.

The committee finds that much educational work done in the State of Georgia in regard to the removal of tonsils and adenoids is now beginning to bear fruit and the requests for such removals are on the increase. To encourage this wave of enthusiasm would be in contra-distinction to the most recent teachings of the great

medical centers of this country where conservation in the removal of tonsils and adenoids is advocated.

The committee recommends for the solution of this problem the following:

1. That each county society assume responsibility for charity cases. That they appoint the physicians interested in the removal of tonsils and adenoids as a committee, who in turn assigns one or more members from among their number or from some adjacent county to do this work free of charge to strictly charity cases.

As the greatest number of such cases are school children the committee suggests that the officers of the county society include the county health officer, the principals of the schools or the county superintendent and two ladies of the community on a committee whose function is to find these charity cases, but the doctors selected, determine the need of the operation.

2. In such places where there are no organized county medical societies, the councillor of that district shall appoint a committee of physicians, who must be members of the Medical Association of Georgia, in or adjacent to the locality where children need this operation, to act as outlined in paragraph 1.

Respectfully submitted,

THEODORE TOEPEL,

Chairman,

F. F. FLOYD,

W. A. MULHERIN.

Atlanta, Ga., June 6th, 1922.

Adopted by the Council, Medical Association of Georgia, 6-6-22.

V. O. HARVARD, Chairman,

A. H. BUNCE, Secretary.

#### REPORT OF COMMITTEE ON THE CRAWFORD W. LONG STATUE.

The chairman of this committee begs to report as follows:

There has not been a meeting of this committee during the past year. During the session of the State Legislature, Hon. Shepard Bryan, attorney for the Medical

Association of Georgia, was interviewed in regard to bringing the attention of that body to the resolutions concerning the Crawford W. Long statue, passed by the Association, and asking for a donation for that purpose. Mr. Bryan discouraged the idea, on account of the financial condition of the country, and advised us to await more prosperous times.

Respectfully submitted,  
W. A. SELMAN, Chairman.

Doctor leaving soon to specialize, with well-equipped offices, in best office building in the city, will either sublet furnished or sell outright, established practice. Address Journal.

Any physician knowing of a good location for a general practice in a good town, will be appreciated, and notify the Secretary and Treasurer of Medical Association of Georgia.

### SAFE HYPNOSIS.

When the physician finds it necessary to prescribe a hypnotic, two questions occur to him: Is it safe? Will it induce a drug habit? If safe, it will put the patient to sleep without risk of immediate or subsequent reaction involving pain or injury of any kind. If non-habit-forming it may be administered as often as the condition of the patient requires, or discontinued at any time without any more inconvenience to the patient than if it had never been taken.

These conditions are said to be perfectly fulfilled in Chloretone, a Parke, Davis & Co., product, which acts upon the dentritic processes in the brain, relaxing them so that both sensory and motor impulses are inhibited. This effect disappears gradually without, apparently, any more alteration in the functions of the nerve filaments than that which follows the sleep of ordinary fatigue.

Chloretone is given for its hypnotic effect in a dose of 5 grains, to be repeated, if necessary, in half an hour, and at this interval, in exceptional cases, up to 20 or 25 grains. It is indicated in the insomnia of excitement.

### BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

**A Primer for Diabetic Patients.** A primer for Diabetic Patients. A brief outline of the principles of diabetic treatment, sample menus, recipes and food tables. By Russel M. Wilder, M. D.; May A. Foley and Daisy Ellithorpe, Dietitians, The Mayo Clinic. 12 mo. of 76 pages. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$1.50 net.

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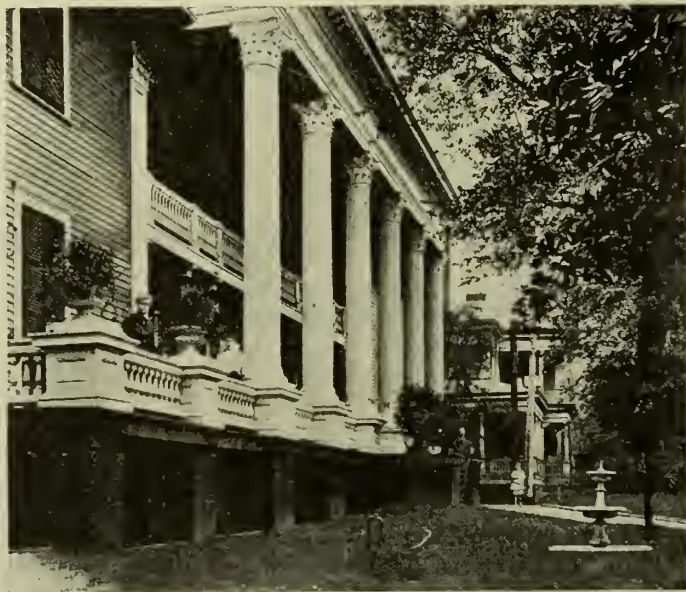
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No. 8

### ORIGINAL ARTICLES

#### SYPHILIS OF THE NERVOUS SYSTEM\*

By Newdigate M. Owensby, M. D.,  
Atlanta, Ga.

In the presentation of this paper it is not my purpose to enter into a lengthy discussion of neurosyphilis and its symptomatology but rather to present to you some of the more salient facts in as concise way as possible.

The advancement of our knowledge of syphilis as an etiological factor in the production of nervous and mental disease has been greater in the past decade than at any other time in the history of medicine. With this advancement the names of Alzheimer, Schaudinn, Metchnikoff, Moore, Noguchi, Neisser, Roux and Wassermann are indelibly associated.

Although much is still unknown, our improved laboratory technique has made it possible to connect syphilis with diseases of the nervous system that were formerly regarded as being open to question. With the elimination of the present imperfections in our technique other fields will be illuminated.

In the examination of patients who present symptoms of disease of the nervous system it should be born in mind that there is no other single etiological factor that can produce so many widely separated and dissimilar clinical pictures as syphilis. The fact that syphilis is acquired or inherited is of relatively little importance since the disease to be dealt with in both conditions is the same.

Neither should the examiner be influenced by a denial of syphilitic infection on

the part of the patient for it is possible that he may be ignorant of the fact. Thus it would be a good rule to try to eliminate syphilis as an etiological factor before making a diagnosis of any nervous disease.

The diagnosis of syphilis of the nervous system is not without its difficulties because of the inconstancy of the symptoms presented. One patient will present symptoms of involvement of the peripheral nervous system while in another the symptoms will be limited to the brain, spinal cord, vegetative nervous system, or in combination with any or all of the others. Just why these divergences should occur has not been determined with any degree of accuracy.

In order to arrive at a positive diagnosis of syphilis of the nervous system it is necessary that a complete neurological examination be made of the patient and a report of the laboratory findings be obtained.

Of the neurological findings in syphilis the one which is of greatest value is that of the eye reflexes. The Argyll-Robertson pupil, while not absolutely pathognomonic of neurosyphilis, is a fairly accurate criterion in the vast majority of cases, and where there is a bilateral Argyll-Robertson pupil one should feel that it is sufficient proof to advise the use of anti-syphilitic medication. Any impairment of the consensual light reflex, irregularities of the pupils or their margins, or optic atrophy is to be regarded as indicative of syphilis and cause a continuation of the search for other corroborative evidence. Romberg's and Wastphal's signs may occur in other diseases than neurosyphilis and therefore should only be regarded of diagnostic

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



value when appearing in conjunction with other symptoms.

The most constant symptoms thus far observed in neurosyphilis are those of the laboratory findings. None of these should be taken as proof positive however and must only be regarded as symptomatic, thus showing the interdependency of the neurological examination and the laboratory findings.

No evidence has been found of a special neurotropic spirochete and in only a small percentage of cases has the specific organism been observed in the central nervous system. Nevertheless we should always look for its presence in suspected cases.

The choice of the fluid for serological examination is a matter of no little importance for it has been noted that the blood may show a negative Wassermann reaction when the spinal fluid of the same patient may show a positive reaction. Again there may be an increased amount of cells and globulins in the spinal fluid which within itself is often indicative of neurosyphilis and the Wassermann reaction of the same fluid give negative results. Therefore it would be a matter of good policy to have a serological and cytological examination of the spinal fluid in all cases before excluding syphilis as an etiological factor in nervous or mental diseases.

Some objections have been raised against the Wassermann reaction because of the effect the intake of alcohol has put upon it and because intracerebral vascular lesions due to syphilis often show a very low or negative reaction, hence it may be well to have additional tests made of the spinal fluid.

The colloidal benzoin test has proved to be much more sensitive, yielding positive reactions in cases of undoubted syphilis when the Wassermann was negative and also being negative in individuals affected with non-syphilitic lesions of the nervous system.

There are numerous other symptoms which are suggestive of neurosyphilis, but

they should only be regarded of diagnostic value when appearing with those already cited.

In order to emphasize the variegated symptomatology produced by syphilis attacking the nervous system I have selected a few cases that have come under my observation within the past few months which may be summarized as follows:

Case No. 1. White male, aet. 29 years, married. Occupation, clerk. Referred by Dr. McD. Family history negative in so far as diseases of the nervous system. Denies syphilitic infection. States that he had a sore on penis ten years ago and that it was treated by a drug clerk friend of his. Married five years ago. No children, but wife has had three miscarriages, which he attributes to female trouble. About two and a half years ago he began to have numb sensations and tingling feelings in his legs and feet. Felt like he was walking on cushions. Since then has shooting pains in legs and cannot walk in the dark. Within the last few months has had two or three vomiting spells of a severe nature. For the past two years his eyesight has failed and finally his vision became so blurred he visited Dr. McD. for an eye examination. His optic nerves showed an atrophy and he was referred to me for neurological examination. My examination revealed a bilateral Argyll-Robertson pupil, absence of knee jerks, tactile anaesthesia of feet and legs, incoordination of movements of feet and legs when eyes were closed, and a well developed Romberg's sign. The laboratory report stated that the spinal fluid showed a positive Wassermann reaction, 13 cells per cu. m. m. increase of globulins, and a luetic curve to the colloidal gold reaction. Diagnosis, locomotor ataxia.

Case No. 2. White male, aet. 43 years. Married. Occupation, planter. Referred by Dr. U. Family history of no bearing. Denies syphilitic infection. Has four healthy children. Youngest twelve years of age. Denies use of alcohol. Enjoyed excellent health until two years ago when he developed convulsive seizures which

had been diagnosed as epilepsy. Since then has had three or four convulsions per week. Stated that the doctors had made five blood examinations which they told him were negative. He suffers with occasional headache and his memory is somewhat impaired. He claims that he has grown more irritable within the past two years. Neurological examination showed a bilateral Argyll-Robertson pupil. No optic atrophy. Tremor of hands and tongue. Increased knee jerks. Laboratory examination of spinal fluid revealed a positive Wassermann reaction, 1 cell per cu. m. m. and increased globulins. Blood Wassermann was negative. Diagnosis: Cerebro-spinal syphilis.

Case No. 3. White male, aet. 45 years. Married. Occupation, banker. Referred by Dr. C. Gave history of syphilitic infection twelve years ago. Received six doses of salvarsan followed by mercurial treatment for six months. Pronounced cured. Eight months ago became hypochondriacal, was easily fatigued, grew irritable, developed indigestion and suffered with insomnia. Took a rest cure for four weeks. No improvement noted. Then visited a health resort and remained two months. Upon his return developed severe headaches and noted an impairment of memory. Shortly thereafter he developed a facial paralysis and was referred to me for treatment. Neurological examination showed paralysis of seventh nerve on the left side of the face. Knee jerks increased. Slight Romberg. Sluggish reaction of pupils to light. Beginning optic atrophy. A slight speech defect. Tremor of tongue. Laboratory reports were that there was a negative blood Wassermann. A positive Wassermann of the spinal fluid. Increased globulins. 23 cells per cu. m. m. Colloidal gold reaction showed a paretic curve. Diagnosis: General paresis (incipient).

Case No. 4. White male, aet. 28 years. Married. Occupation, manager. Referred by Dr. E. Family and past history were negative regarding syphilis. Married three years and had one child, which was sickly. Occasional over-indulgence in alcohol. Two

weeks before he had an apoplectic attack evidently resulting from the rupture of one of the branches of the lenticulostriate artery supplying the internal capsule, etc., which was followed by an hemiplegia of the right side with aphasiac complications. Laboratory reports were positive Wassermann reaction of the spinal fluid. Increase of globulin and 16 cells per cu. m. m. Diagnosis: Hemiplegia with syphilis as the etiological factor.

Case No. 5. White female, aet. 3 years. Referred by Dr. F. Family history, negative regarding syphilis. Father and mother very neurotic. Mother had one miscarriage before the birth of this child. The child made no effort to walk and when one attempted to make her stand it was found that the legs were held stiff, the thighs rotated inward, were strongly adducted, and crossed when attempting to walk. A talipes equinus was pronounced. Her speech was difficult. Some evidence of cross eyes noted. Hutchinson's teeth. The knee jerks were exaggerated. An examination of her spinal fluid showed an increase in globulins and a cell count of 16 per cu. m. m. The Wassermann reaction was negative. The spinal fluid of the father showed a positive Wassermann reaction. Diagnosis: Little's disease due to congenital syphilis.

Numerous other cases may be cited where there is a mental enfeeblement, paralysis, hydrocephalus or epilepsy in children, or clinical pictures ranging from neurasthenia to insanity in adults where in syphilis has played the stellar role in the etiology, but that would only be a matter of literary effort.

Since there are no indications that syphilis expects to relinquish its position as leader of all other etiological factors in the production of diseases of the nervous system I wish to reiterate that it is a good rule to suspect syphilis in all nervous and mental diseases until it has been proved absent.

#### 1—DISCUSSION:

Dr. George L. Echols, Milledgeville:

I wish to emphasize one point, and that is, you can have a neuro-syphilitic involvement without having any neurological findings whatever. We did not think so a few



years ago, but when we started puncturing all of the patients who showed a positive blood Wassermann to our surprise, we found cases that showed absolutely no symptoms of a neural involvement that gave a positive spinal fluid finding. We have had two cases in the past three years that showed a definite paretic spinal fluid finding with absolutely no neurological symptoms. I urge that in all syphilities you examine the spinal fluid. It will save you the embarrassment of treating a patient for a while, getting a negative blood Wassermann and having the symptoms clear up and the patient feeling better, yet in a year or two developing paresis.

2:  
Dr. Owensby:  
There seems to be a fad at present of attributing many of the nervous and mental conditions, particularly in children, to an endocrine disturbance. I wish to caution you against being too enthusiastic over the endocrines as an etiological factor in the production of these diseases, and to reiterate the fact that it is always well to suspect syphilis.

STATISTICAL DATA IN CONNECTION  
WITH THE EXAMINATION OF 734  
EX-SERVICE MEN FROM DECEMBER 1, 1919, TO NOVEMBER 15, 1921\*

William Howard Lewis, B. A., M. D.  
Rome, Georgia.

In the period from December 1, 1919, to November 15, 1921, 734 ex-service men were examined by Consultant Unit No. 2 of the United States Public Health Service, located at Rome, Georgia. This unit consists of private physicians comprised of Dr. A. C. Shamblyn, Chief Examiner; two surgeons, Drs. R. M. & W. P. Harbin; an internist, Dr. W. H. Lewis; eye and ear, Dr. R. P. Cox; nose and throat, Dr. G. B. Smith, and Dr. Carl Betts, dentist. They had at their disposal the Harbin Hospital with clinical laboratories and x-ray equipment. Every man received a complete examination, urinalysis, Wassermann and such special work as his particular case indicated. Practically every man had a complete eye, ear, nose and throat review. If necessary they were detained in hospital for study. The findings set forth below are those of a group who applied for examination or medical attention for various reasons of their own and the data indicates the condition preceding and at the time of examination. Events subsequent to that occasion are not recorded. These men applied for examination with the desire of obtaining compensation or medical or dental attention.

The following data are submitted, together with comments upon the significance. These tables form an interesting

study of a group of young men who apparently constitute an average in health and stability as far as external appearances would indicate. Only rarely did an active disease crowd a patient for this service.

1. AGES.

Under 20 years of age	13
From 20 to 25 years of age	308
From 25 to 30 years of age	307
Over 30 years of age	106

Total 734

2.

Negro	41
Born in Georgia	632
Live in Georgia	723
Foreign born	5

In table No. 2 it is evident that the majority of the men born in the state have not been inclined to move beyond its borders. The insignificant number of foreign born also make this a morbidity table for native American youth, a ratio which can probably not be duplicated in many communities.

3. OCCUPATIONS.

Students	19
Farmers	333
Professional	15
Mechanical	66
Laborers	192
Clerks	91
Merchants	18

Total 734

4.

OFFICERS	11
----------	----

The small number of ex-officers applying rather suggests a social attitude toward government assistance, although the proportion is fairly equable.

5.

Married	375
Single	359

Total 734

6.

OVERSEAS	373
----------	-----

The proportion of those who were overseas just, 50 per cent, is about the same ratio as in the actual army total.

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.

## 7. INJURIES.

Civil .....	33
Military .....	46
Gassed .....	31

Military signifies only injuries experienced in combat and civil any other injury at any time in their lives. Only 1.2 per cent of the men who went overseas sustained a military injury and only 0.6 per cent of the entire group. However, in the brief period of warfare 50 per cent of the men sustained more injuries than the 734 during the entire period of their lives. The gas data are unreliable, as a gas claim was a rather common source to which credit for lung trouble was directed.

## 8. ILLNESS AT ANY TIME.

Previous to service.....	287
During service.....	370
Since service .....	133

## 9. NATURE OF ILLNESS.

Typhoid .....	119
Pneumonia .....	160
Influenza .....	266
Rheumatism .....	34
Tonsillitis .....	266
Miscellaneous .....	232

Total .....1,077

These tables indicate that this group had 1,077 instances of more than minor illnesses in their lives, or about one and one-half per individual. Preventable typhoid ranks high, as 16 per cent had it, practically all before enlisting.

## 10. OPERATIONS AT ANY TIME.

Civil .....	498
Military .....	47

Total ..... 525

## 11. TIME OF OPERATION.

Before service .....	93
During service .....	123
Since Service .....	309

Total .....525

## 12. NATURE OF OPERATION.

Head .....	300
------------	-----

Thorax .....	14
Abdomen .....	174
Limbs .....	37

Total ..... 525

## 13. NUMBER OF OPERATIONS.

One operation each .....	185
Two operations each .....	212
Three operations each .....	72
Four operations each .....	26
Five operations each .....	29
Eight operations each .....	1

Total ..... 525

The figures in regard to operation are striking. 498 civil operations upon 734 men is quite a high proportion and the end was not yet. Of course, a large proportion of the 300 grouped under head were merely tonsils, but at that surgery has been rather active. The habit appears to have been acquired subsequent to their enlistment.

When we consider that the majority of head operations were for tonsils, the figure for the abdomen is suggestive. Does it mean that there is more pathology in the abdomen or that abdominal surgery is entered upon rather lightly? Thoracic surgery, with but 14 to its credit, is equally significant. Table 13, might well make one think that operations were an infectious and recurrent disease.

## 14. COMPLAINTS AT TIME OF EXAMINATION.

Head .....	31
Eye .....	42
Ear .....	26
Nose and Throat .....	89
Teeth .....	141
Respiratory .....	163
Circulatory .....	54
Abdominal .....	149
Urinary .....	24
Nervous .....	37
Extremities .....	91
Miscellaneous .....	133

Total ..... 985



## 15. LENGTH OF COMPLAINT.

Present .....	118
Six months .....	23
One year .....	67
Two years .....	374
Five years .....	149

## 16. COMPLAINTS BEGINNING.

Before service .....	97
During service .....	348
Since service .....	286

The respiratory tract claims most attention in this group and upon this proportion may be based the statements in regard to the great number of lung cases abroad in the land. The abdomen comes next, suggesting the relation between this complaint and the proportion of abdominal surgery. A relatively small number presented the popular malady of kidney trouble.

It will be noted that 523, or 70 per cent, had trouble for two or more years. This may indicate an actual fact or it may be based upon a desire to see that the complaint antedated the service. The man's statement in this instance must be taken for its face value.

## 17. FINDINGS UPON PHYSICAL EXAMINATION.

## Nutrition on Basis Zero 1-2-3.

No. 1 .....	440
No. 2 .....	195
No. 3 .....	69

Total ..... 704

Nutrition was based upon ratio of weight to height, zero being normal. This system of recording is followed in other tables.

## 18. EXPANSION, CHEST.

One inch expansion .....	36
Two inch expansion .....	207
Three inch expansion .....	276
Four inch expansion .....	102
Five inch expansion .....	10

Total ..... 631

It may be observed in passing that no negro had an expansion above two inches.

## 19. TEETH INFECTED OR NEEDING DENTAL ATTENTION ON BASIS ZERO 1-2-3.

No. 1 .....	226
No. 2 .....	168
No. 3 .....	138

Total ..... 532

## 20. TONSILS, SIZE OR INFECTED.

No. 1 .....	225
No. 2 .....	268
No. 3 .....	134

## 21. CERVICAL GLANDS ENLARGED.

No. 1 .....	366
No. 2 .....	67
No. 3 .....	16

## 22. BLOOD PRESSURE.

## Systolic.

90 .....	12
100 .....	69
110 .....	200
120 .....	217
130 .....	126
140 .....	74
150 .....	21

Total ..... 719

## Diastolic.

50 .....	6
60 .....	52
70 .....	238
80 .....	280
90 .....	117
100 .....	20
110 .....	6

Total ..... 719

## Pulse Pressure.

20 .....	38
30 .....	199
40 .....	249
50 .....	163
60 .....	70

Total ..... 719

All blood pressure readings were made with a mercury instrument. It will be noted that 75 per cent had a systolic pressure between 110 and 139 and 88 per cent a diastolic pressure between 70 and 99,

while 82 per cent showed a pulse pressure from 30 to 59.

## EYE, EAR, NOSE AND THROAT FINDINGS.

### 23. EYE FINDINGS.

Refractive errors .....	235
Diseases of conjunctiva .....	49
Disease of lids .....	10
Disease of cornea .....	23
Disease of lens .....	2
Diseases of retina .....	19
Iridocyclitis .....	3
Chroiditis .....	3
Diseases of optic nerve .....	2
Strabismus .....	3
Amblyopia .....	14
Miscellaneous .....	6

The outstanding feature here is that 44 per cent of the men had refractive errors, while in only two was there evidence of organic nerve disease.

### 24. EAR FINDINGS.

Otitis media, chronic non-suppurating	110
Otitis media, chronic suppurating	4
Otitis media, acute	3
Otitis interna	4
Otitis interna and media	6
Otitis media suppurating historic	16
Eczema auris	5
Tubo tympanitis	7
Polypus	2
Impacted wax	35

Practically 25 per cent had evidence of present or historic otitis media.

### 25. NOSE AND THROAT FINDINGS.

Chronic inflammatory	10
Acute inflammatory	1
Hypertrophied turb	8
Deviated septum	181
Chronic tonsillitis	340
Enlarged adenoids	14
Larynx inflammatory	7
Sinusitis	10
Ethmoiditis	25

Fifty per cent possessed tonsils which were apparently pathological and 26 per cent had grossly deviated septa. The number of infected ethmoids is of interest.

### 26.

Negative findings eye and ear	211
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Total examined eye and ear	534
Negative findings nose and throat	190

Total examined, nose and throat.. 670

Of the entire group but 27 per cent had normal nose and throat and but 39 per cent normal eyes and ears.

## FINDINGS—GENERAL.

### 27. CHEST.

Lungs	37
Tuberculosis	17
Hear	26

Total .....

Pulmonary pathology was demonstrated in only 5 per cent of the cases and tuberculosis, active or arrested, in only 2.3 per cent. This is in striking contrast to the complaint table in which 22 per cent stated that there was pulmonary trouble. However, this is a ratio of better than one in four and about one in ten for tuberculosis.

### 28. ABDOMINAL.

Stomach—Reflex	16
“ Primary	7
“ Ulcer Duodenal	11
Intestinal	8
Amoeba	7
Appendix	41
Gall Bladder	5
Hernia	20

Total .....

### 29. GENITO-URINARY.

Bladder	3
Prostate	9
Kidney	23
Varicocele	28

Total .....

### 30. SKELETON.

Joints	44
Orthopedic	24

Total .....

### 31. NEUROLOGICAL.

Organic	7
Mental	3
Functional	63

Total .....



32. MISCELLANEOUS.

Varicose veins, legs .....	20
Diabetes .....	5
Goiter, simple .....	6
Exop. Goiter .....	2
Malaria .....	1
Haemorrhoids .....	36
Miscellaneous .....	79
Malignancy .....	2
Pain .....	56
Trauma .....	56
Negative .....	90

Under pain are grouped what are commonly classed as neuritis, lumbago, muscular rheumatism, etc., with no definite pathology. It will be noted that only 90, or 12 per cent, passed a perfect general examination. The abdominal pathology here ranks above the other groups, although there is really a quite general distribution.

33. LABORATORY FINDINGS.

Urinalysis .....	882
Pus .....	98
Albumin .....	177
Sugar .....	7
Casts .....	27
Blood .....	9
Positive Wassermanns .....	43
Sputa .....	117
Sputa, positive .....	5
Cystoscopies .....	15
Proctoscopies .....	19
Stool examinations .....	22
Functional test, renal .....	11
Culture, blood .....	3
Lumbar Punctures .....	15

In 20 per cent of the urine, albumin was present and in 11 per cent pus to some degree. These findings are open to various interpretations. However, casts in 3 per cent seems a high figure for so young a group of men.

In 5.8 per cent was there a markedly positive Wassermann reaction (slightly positives are ignored). Making all due allowance for the vagaries of Wassermann evidence this is an excellent record, considering all the facts, although one in nineteen is not too safe a margin. The major-

ity of these positive reactions appeared in cases with no definite features of syphilis.

34. X-RAY FINDINGS.

X-ray total .....	722
Positives	
Head .....	23
Teeth .....	137
Chest .....	95
Gastro Intes .....	40
K. U. B. ....	2
Extremities .....	25
Total .....	302

The record of x-ray data is particularly noteworthy, indicating the value of the x-ray in demonstrating pathology. In 41.8 per cent of the exposure definite evidence of disease was secured, while on the other hand the negative findings were usually of equal value in arriving at a diagnosis. This negative value in the chest case is of special importance. The proportion of positives was highest in the teeth, where 53 per cent of the men suspected were proved to harbor diseased teeth. This is most significant evidence of the prevalence of dental infection.

In conclusion we may set forth the following major facts:

1. Practically all of these men are native Americans of apparently reasonable health.
2. A great proportion of them have been subjects for surgery with the abdomen and tonsil as the favorite site.
3. The principal complaints referred to the lungs, abdomen and teeth.
4. The majority dated their trouble over two years back.
5. 72 per cent of them were grossly in need of dental attention.
6. There is not as much pulmonary pathology as suggested by the complaint.
7. The abdomen is the site of the greater portion of the pathology.
8. A relatively small number passed as perfect in either general or special examinations.
9. There is a large proportion of urinary findings.

10. Syphilis is present in a fair proportion.

11. The x-ray is the most valuable single agent in demonstrating or disproving the presence of disease.

12. Dental root infection is extremely common.

13. Examinations checked by two or more men produce evidence which one man either may overlook or interpret variously.

14. A careful general and special examination, supplemented by x-ray and laboratory have been demonstrated that the great majority of ex-service men in this group were in need of dental or medical attention to a variable extent. This evidence was only elicited by most thorough investigation.

15. If this small group be taken as an index, general physical examination should be given the young man—not waiting till the age of forty, as commonly quoted in certain circles.

### HAVE WE DRIFTED TOO FAR?\*

By Samuel A. Visanska, Ph.G. M. D.,  
Atlanta, Ga.

To the mariner traevling the uncharted main without the benefit of guide or compass the trend of the tide is always welcome if it leads to some safe harbor, and it is sometimes both pleasant and profitable to drift with the current, believing that a desired and definite harbor will surely be reached.

But there comes a time when in the passage across the turbulent sea of the medical profession the tide of conservatism and caution, or of restricted vision, may lead one toward a goal too distant and through a passage way too difficult. Such a goal and such a passage I detected months ago when I first began to think on the general subject of over-specialism in our profession, and it was then I seemed to realize that we had drifted a long way from our initial purpose which was to relieve sickness and suffering and to restore our patients to health by the very quickest possible route. In our effort to

do this we often allowed ourselves to limit the horizon of our individual services and to rely too much on the experience of our fellow practitioners and thus to lose confidence in what we might ourselves safely undertake.

The first step in this direction seemed to me to demand that we have a better and broader understanding of *materia medica* and therapeutics, and I am glad now that I did not write on this subject when it first occurred to me because since that time I have been able to avail myself of certain facts brought out by our current medical publications in which it appears that I have not been thinking alone on this line, but that I may claim distinguished company in my thought-journey. It seems there are others who agree with me in recognizing the value of *materia medica* and therapeutics, and who feel as I do that a better and broader knowledge along that line might not only have saved many soldiers and civilians from loss of life by disease during the late war, but might continue to save our citizens in time of peace.

If we will admit this, just for the sake of argument, I shall proceed and first of all, I would ask that you let me recall to our minds the exact definition of these two words—*materia medica* and therapeutics—possibly such might be done toward regaining our professional balance if you will think of these simple definitions.

Stevens defines *materia medica* as that branch of medical science which treats of the remedies used in medicine. It deals with their sources, physical characteristics, composition, preparations and doses.

Therapeutics is that branch of medicine which deals with the application of remedies to disease. In its broader sense it has to do not only with drugs, but with all other agents which are of service in restoring health, prolonging life, or affording comfort to the sick. Therefore, whether you are using radium in the treatment of cancer, or quinine for malaria, or whether as a surgeon you have performed an appendectomy, each effort is after all only a therapeutic agent, because in each

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



instance something was done to restore health, prolong life, and give comfort to the sick.

But the man who treats cancer, or the surgeon who removes the appendix, must at some time be called on to relieve pain or to write a prescription for other conditions. Unless, therefore he is fully informed on *materia medica*, its uses, and its abuses, he will often fail to produce the result he desires to reach.

It is a sad fact that many drug addicts, lightly called "dope fiends," are suffering still from some too hasty hypodermic of morphine, when perhaps a carefully thought-out substitute could just as well have been used.

It is at this point that I wish to emphasize most strongly the importance of blending a thorough knowledge of *materia medica* with therapeutics in its broadest sense, for without this you will inevitably sooner or later fail in your chosen profession.

During the world war we had a most virulent epidemic of influenza and measles, causing such distressing complications as broncho-pneumonia and empyema. When we realize that influenza was recognized and treated in this country since 1647, the question might well be asked have we any reason to be proud of what we have learned about it; our death rate will answer this question in the negative. All these years we have accepted the theory that the bacillus of Pfeiffer, discovered in 1892, was the cause primarily of the disease and until our recent epidemic no one, to my knowledge, had gone to the trouble to investigate the truth of this theory. It is not surprising therefore that as soon as the disease and its terrible complications appeared among us it spread like wildfire and took its toll of thousands. Then, indeed, bacteriologists were alive to the need of finding the real cause, which they diligently sought by night and day to determine. In fact, they almost fought among themselves in an effort to maintain and verify their divers opinions, but to my best knowledge and belief the bacil-

lus of influenza has not been isolated and positively determined to this day.

Yet there is no doubt in my mind that we can boast in this country of bacteriologists as good, as scientific, and as thorough as can be found anywhere else in the world. However, it has been our custom, heretofore, to blindly accept any theory brought from abroad; why this blind reliance on foreign opinions I have never been able to understand.

We have had epidemics of influenza in this country since 1830; the next in 1833; then in '36 and '39; again in '47 and '48; yet again in '89, '90 and '91, with even a recurrence in 1900. During all these years did anyone undertake to dispute the aetiology of the disease? I can find no record of it. The same might be said also of the treatment used; one camp or hospital might report that certain vaccines have proved beneficial to them, while from a similar sources an exactly opposite statement might be made. For instance, the use of digitalis was praised and condemned; so was quinine and a number of other remedies.

In 1906 I read a paper before this association on the treatment of broncho-pneumonia and among other things, I stated that digitalis had given good results in cases where heart actions were rapid and weak; sometimes, in fact, the beats were so rapid that it was impossible to count them. I stated that digitalis was a cardiac regulator, for by its effects on the cardiac ganglia and on the muscle itself it induces contraction and strengthens the systole, by its effect on the vagi it prolongs the diastole. The result of this double action, as we all know, is that the diastole of the heart is lengthened so that more blood is allowed to enter the ventricles while the systole is made stronger in order to impart new vigor to the flow of the blood into the arterial system and at the same time a rapid and irregular pulse is slowed and steadied. A few of the members at that 1906 convention took issue with me on these points and I was criticized particularly by one of the members

who thought the use of digitalis in an acute condition was entirely out of place, though he, together with other members, discussing the point at issue, had never had any experience with such a condition.

However, the pendulum swings both ways; during the late war digitalis was used with brilliant results, especially in England, to bring about exactly conditions outlined by me in 1906.

Let us for a moment consider quinine as a prophylactic in influenza. On this point I will quote Garvin, who says: "None of the men being given treatment for malaria developed influenza at Lyons." Garvin gathered his information as the result of a questionnaire sent to the ninety hospitals, or hospital sections, devoted to the care of malarial soldiers regarding the experiences had there with influenza. Forty-six replies were received from these institutions and 61 per cent reported no cases of influenza among the malarial patients; 20 per cent reported influenza in a mild form; and 19 per cent stated that no differences were noted among the malarial and non-malarial patients. The protection seemed to be greater when malarial patients were taking both quinine and arsenic. At the Lyons hospital thirty of the malarial patients aided in caring for three hundred influenza patients, but none of the former contracted the disease.

Ceconi, another observer and authority, also relates the significant fact that in a town in Italy where malarial soldiers were segregated there did not occur a case of influenza among the malarial inmates of four hospitals, although in those institutions the physicians, nurses, clergy and other attaches had the disease in epidemic form.

Conditions such as those described bring forward the question as to whether malaria is incompatible with influenza, or whether the quinine taken by the malarial patients protected them against the disease—influenza. I have no doubt other men who were in a position to carry out experiments along this line may be able to give us some startling new facts on the subject in the near future.

I have quoted foreign authorities because data has been available to them and they in turn have given it to us and not because I held the opinion of foreign physicians above those expressed by our own men. In fact, one of the most refreshing articles that I have read in some years was the address made by Spencer L. Dawes, of New York, before the twentieth annual meeting of the American Therapeutic Society, held at Atlantic City June 7th, 1919, and later published in the New York Medical Record. Dr. Dawes begins his address with the well-worn but always pertinent phrase, "Friends, Romans, countrymen, lend me your ears, I come to bury Caesar, not to praise him," and he then proceeds to describe the great progress that has been made in the last few decades, saying, "So great has been the progress, so astounding have been the discoveries in our profession, that when I set out to offer an extended criticism of medical teaching I am likely to be set down as a reactionary, to be dubbed unscientific and unprogressive. Not only are the entrance requirements of most of the medical schools much more difficult to meet, securing thereby a better educated and in that sense a much more desirable type of student than formerly, but the teacher is also better equipped and what he teaches today is usually based upon carefully studied statistical data, case histories, hospital records, and laboratory findings, instead of long-winded, didactic lectures expounding the individual opinions of the teacher. Every graduate is made to be familiar with the microscope; is supposed to be able to make an autopsy; can make a blood examination and a Wassermann; has done spinal punctures and examined stomach contents; can differentiate in the laboratory between typhoid and paratyphoid; has an intimate acquaintance with calories, opsonisms and vitamins; can read a skiagraph if he can take one; etc., etc." Is he merely to be a scientific investigator, a diagnostician, a bacteriologist, an histologist, a pathologist? A doctor may be a skillful diagnostician, an experienced pathologist, a wonderful microscopist, and he



may be experienced in the use of all instruments of precision, but despite his combined knowledge, if he knows nothing of materia medica and of therapeutics, he can not perform the only duty for which his calling is an excuse." Another interesting paper read before the Mississippi State Medical Association and published in the Southern Journal, November, 1919, is by P. W. Rowland, M. D., professor of pharmacology, School of Medicine of the University of Mississippi at Oxford. Dr. Rowland says:

"I am reading you this little paper to stimulate your imagination. We need to get away from our slipshod, haphazard, ill-considered, illogical, inaccurate and irrational selection of drugs in the treatment of disease, and I will say the best doctor is he who knows the most of the best drugs. How shall we measure the value of a drug? The true value of a drug is conditional upon the stimulation of natural processes, physiologically, or chemically, or both, in the body, in such a way as to induce increasingly normal physiological or chemical processes, thus effecting in time a relief of the pathology or a cure of the disease. Therefore, any drug which retards or prevents a stimulation or increase in these processes is harmful." Dr. Rowland then asks, "What has given rise in these latter months to the widespread use of camphor in the treatment of pneumonia? Or is it better to designate such a common drug by a more euphonious appellation and call it pneumonic or pneumococcic oil? It will take an hour to enumerate the many diseases in which camphor has been used. As far back in history as I can find it has been used in the treatment of pneumonia, till now, in some quarters, at least, it is regarded as a specific. I find the main reason for using it is the belief that it stimulates the heart. Camphor is not, per se, a circulatory stimulant but, like any volatile, may reflexly cause a slight quickening of the heart, accompanied by a dilatation of the skin vessels. This is of very short duration and is of value only as a

single dose in an emergency and, even then, entirely unreliable. The most significant features in influenzal pneumonia are the exhaustion following a toxic heart, with attendant dilatation of the arterial system and low blood pressure. There is no specific treatment for pneumonia and hence it is of necessity empirical, but we can and should use only those drugs which will meet the test I have given. Camphor does not do so in any sense. It does not strengthen the pneumonia heart. It does not raise blood pressure."

Another eminent authority, Cushing, speaking of camphor says: "In man and animals the heart is sometimes slowed, but is generally little affected in strength or rate. The slight dilatation of the skin vessels is the only change in the circulation, unless quantities sufficient to cause convulsions are given." In these conclusions Gottlieb and Meyer agree. Heard and Brooks tested camphor on human beings. In five cases with normal circulation a hypodermic of camphor, twenty grains in oil, showed no change in circulation in four cases, and in one case a fall of seventeen MM in systolic and twenty-five MM diastolic pressure. Sollman says: "Systematically the effects are very inconstant, owing perhaps to its uncertain absorption and rapid destruction of the drug. It is partially contraindicated in pneumonia, because of the oxygen starvation. This disturbs the oxidation of camphor into glycosuric acid, thus increasing the toxicity. The widespread vasodilatation results in lowering the blood pressure in the right heart."

Calomel is another drug about the action and value of which we disagree. In the Journal of the American Medical Association, October 8th, 1921, Dr. J. I. Durand, Seattle, in discussing a most excellent paper by Dr. Henry P. Helmholz, said: "Calomel should not be given a child under three years of age. It is a drastic purge and does much harm." Now, I did not purpose to permit a statement like that to go unchallenged, for it is indeed a drastic statement and the child "under three

years of age" must be very tender as to its "inner tubes" to be hurt by calomel. My own experience with calomel is that in the majority of instances it must be followed by oil or some other laxative. I trust none of the readers of the A. M. A. Journal took the advice which I have quoted seriously. You can try every other preparation in the Pharmacopoea and you will find that in certain toxic cases nothing can take the place of calomel. The dose of calomel is put down as 1-10—10 grains. Calomel acts as a laxative or as a purgative, according to the method of its administration and the susceptibility of the patient. Unlike other cathartics its effect does not increase in direct ratio with the dose. Its action is not usually accompanied by much griping, but in some persons the drug incites more or less nausea.

Cathartics are classified into laxatives, purgatives, drastics, and hydragogues. Laxatives are the least irritable of all cathartics; purgatives are more powerful than laxatives, but if given in small doses, act as laxatives. Calomel comes under this head. Drastics have a very violent action and in overdoses produce the symptoms of acute enteritis. Croton oil is an example of a drastic cathartic.

In addition to what I have said to be the result of my experience with calomel, the latest theory about the drug is that it stimulates the endocrines.

To those of you who use radium I would like to quote the opinion of Dr. Geo. Stuart Willis, visiting physician and director of the radium department of the New York Post Graduate Hospital, who, in an article appearing in the New York Medical Record, November 5, 1921, writes on Radium Therapy in Cancer. "The use of radium in cancer is greatly on the increase. Much progress is being made in its application and the utilization of its rays, but the therapy is still very much in its infancy." Under the head of "treatment," Dr. Willis says: "Much may be expected from the medical treatment of malignancies in conjunction with radium therapy. The two main factors necessary for suc-

cess in treatment are, first, that the growth is accessible to the action of the radium, and, secondly, that the physical condition of the patient is such that he will withstand the treatment. While literature is teeming with the description of the necessary dosage required to treat a growth of a given kind and size, our experience in the New York Post Graduate Hospital has been that it is necessary to treat the patient rather than the growth and, therefore, our doses are based upon the theory that a patient can take care of a certain absorption due to the disintegration of the growth. For example, in treating a patient who has a hemoglobin of 55 per cent and red corpuscles of only 3,000,000 per c. m. m., it is impossible to use as large a dose of radium at one time as in the treatment of a patient who has a comparatively normal blood count. Therefore, they resort to transfusion by the citrate method to combat the toxemia which always exists after treatment with radium. Sodium bicarbonate and sodium citrate have been our chief aids. Sodium bicarbonate is given in dram doses t. i. d for at least a week. Sodium citrate in 15 grain doses every three hours. It has been our habit to give iron also in some form, either intravenously, subcutaneously or orally. A liberal diet is also prescribed and constant attention is paid to an increase in bodily weight."

The full significance of this carefully considered medication by a surgeon, who, a few years ago, would have deemed it unnecessary to take medical treatment into account in caring for his surgical patients, bears directly on the point I am seeking to make. It is plainly to be seen from the cases I have quoted that whether you be surgeon or gastro-enterologist, gynecologist or dermatologist; whether you are a specialist in the treatment of cancer or whether you have devoted your time and attention to any other one branch of medical practice that you will, sooner or later, find that unless you do have a thorough knowledge of materia medica and therapeutics you can not possibly give your pa-



tient the correct and conservative, and hence the constructive care to which they are entitled.

This is not a plea for drugs; it has been said that the best medical preparations can be counted on the fingers—I may increase the list to include the number on toes as well, but even with twenty basic drugs, it is obviously impossible to secure the results we wish unless we understand and practice the best that our experience has taught us to use and which the experience of others indicates as being best suited to individual needs. The truly successful practitioner is the man who follows this course, and we must believe that the physician imperial to our Honorable President of the United States is such a man or we would never have been called upon to witness the specially imported doctor brought from a Western town to officiate at the White House with the brevet rank of brigadier general!

The same conclusion forces me to ask if we would have been called upon to witness the spread of the various cults in the art of healing if we had ourselves been as successful as we should have been and as we might have been if we had the opportunities open to us? In our own personal experience we have witnessed, first, the struggle which the osteopaths had to secure license in the State of Georgia, then came the chiropractors, who were recognized almost at once and slid into practice "as though they were greased." The intimation is inescapable—we, as regular physicians, must have failed in treating our legislators or their families and thus, by our own lack of success, have opened the doors to other cults.

I remember very well when, years ago, as a student of the Philadelphia College of Pharmacy, I, together with other students and physicians, were greatly amused at the homeopaths, who, with their sugar-coated tiny pills and their minute doses of medicine in full glasses of plain water, yet had a following of patients. Today this following has in no way lessened and I am forced to believe that these practi-

tioners did accomplish results because of their understanding of *materia medica*. And yet again we have the Christian Scientists, with other followers of mental healing, all with a large and growing clientele. Now, gentlemen, I ask, "What does this mean? It is well for us to pause and think. Have we limited our usefulness with over-specialism? Have we lost sight of the great and valuable help in healing which is our heritage through *materia medica*? I fear we have, for as true disciples of Galen we should be willing to follow in the footsteps of the older physicians who practiced their profession unshared by empiricism and unhampered by the fear of entering any other "special line." Fortunately, there is yet time for the pendulum of medical practice to spring backward once more, and then, weighted with the experience of years, to settle into a steady equilibrium, which shall result in benefit to patients and in satisfaction and success to physicians. I say, "God speed that day."

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714-17 Fourth Nat'l Bank Bldg.

### A DIAGNOSTIC AID OF UNQUESTIONABLE VALUE.\*

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School of Medicine.

The Colloidal Gold Reaction arose out of the researches of Zsigmondy, who in 1900 discovered that solutions of proteins protect colloidal solutions of gold and other metals from being precipitated by electrolytes. In 1912 Lange used this method in an attempt to determine the amount of protein in the cerebro-spinal fluid. He found, however, that the protein not only did not protect the colloid, but actually facilitated in its precipitation. Using a series of dilutions of cerebro-spinal fluid containing an increased amount of protein he obtained a maximum reaction sometimes with one solution, sometimes with

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\*From the Clinical Laboratory of Dr. A. G. Kelley.  
Read before the Medical Association of Georgia, Columbus, May 3, 4, 5, 1922.

another. The reaction was not dependent on the quantity of protein present, but upon the actual clinical class to which the fluid belonged, or the pathology present. Thus the reaction is of value for differentiating one pathological condition from another, rather than, as was first expected, for making a quantitative determination of the protein.

While the reaction is not in general use, I believe it has its place in the diagnostic laboratory. I believe if properly made with a carefully prepared solution of colloidal gold, that it is equally as dependable as the well-known and much-used Wassermann reaction and for that reason I have, for the past three years, used it against the Wassermann reaction. I have worked with known and unknown specimens, and my results have been, I think, very gratifying. Under no conditions should a laboratory report be accepted as final. The clinical data must be incorporated as part of the report before a diagnosis can be made. The laboratory has its place as an aid. I have selected the colloidal gold reaction as a diagnostic aid which, I think, is of unquestionable value.

One obstacle in the way of progress is the coarseness of some of the methods commonly employed. It is only when such tests as the Wassermann reaction and the colloidal gold reaction are applied to the spinal fluid that we begin to realize the possibilities of chemical investigation on this fluid. It is inconceivable that the fluid which bathes the nervous tissues and which receives the products of their metabolism should be perfectly normal in such an essentially toxic condition as disseminated sclerosis, and yet, because we fail to demonstrate an increased cell count or protein content we must be satisfied to call it negative. There can be no doubt that as our methods of investigation become more and more refined and penetrating, chemical and biological changes will be revealed in the cerebro-spinal fluid which were never dreamt of in our philosophy and these may give us a log and a horn on the

great fog-bound and uncharted seas of investigation.

The cerebro-spinal fluid is in many ways a unique fluid. Although having its origin directly from the blood it differs diametrically from the serum in the remarkable simplicity of its chemical composition. That composition may be described in a word by saying that the fluid differs from distilled water in that it contains traces of sugar—which is dextrose, a trace of urea, a few cells and is alkaline in reaction. The total solids will amount to something like one and one-half per cent (1 1-2 per cent), normal fluid. The amount of fluid varies greatly and if removed is quickly reproduced. Its chief use is probably to afford mechanical protection to the nerve centers and to lessen or prevent the effects of concussions communicated from without. It is removed by spinal puncture. (First introduced in the living subject by Quinke in 1891.)

The reagent used is mixture of (a) gold chloride, (b) potassium carbonate, (c) formalin, and (d) distilled water. This is a colloidal solution of gold.

The color must be a clear old rose. Reaction neutral. If it is rose blue in color or if the reaction is either acid or alkaline it cannot be used. The reaction can be corrected, but when the color is off it is absolutely worthless. The slightest blue or purple tinge will ruin it.

The test: Set up ten small test tubes with a dilution of spinal fluid in 0.4 salt solution from 1:10 to 1:5120. To each add 5. cc of reagent. Read after 12 hours. Normal fluid causes no change in color. The pathological conditions induce changes in the color from the normal rose color to a complete decolorization. The result is expressed in figures in the form of a curve, as follows:

- 0—ROSE (NORMAL).
- 1—ROSE with PURPLE.
- 2—PURPLE.
- 3—BLUE.
- 4—PALE BLUE.



5—COMPLETE DECOLORIZATION.

The following are typical curves:

- 0000000000—NORMAL.
- 5555543210—PARESIS.
- 0123321000—SYPHILIS.
- 0001224531—MENINGITIS.
- 0000001234—TUMOR.

There is such a finding where we have to deal with atypical curves. I refer to the so-called "zone curves." These curves are in the neighborhood of the known curves and are very helpful and suggestive. For example, suppose we have the following curve: 5543100000. I would call it a paretic zone curve.

In 100 cases of known cerebro-spinal syphilis my findings were as follows: (It might be well here to explain that all of these cases were unmistakably cerebro-spinal syphilis. Before they were grouped in this series we were able to get repeated four plus positive Wassermann reactions and the necessary clinical data, autopsy reports, etc.

Syphilis curve or zone curve.....	78
Paresis                                       "	14
Meningitis                                  "	5
Tumor                                        "	3
Normal                                       "	** 0

\*\*Note that none of the reactions were normal.

In many instances where the Wassermann was negative or doubtful the colloidal gold solution gave a "zone curve." Later we were able to get both a true curve and a four plus positive Wassermann.

A paretic curve in the course of treatment is a bad prognostic sign.

1—DISCUSSION:

Dr. R. C. Swint, Milledgeville:

I was much interested in Dr. Kelley's discussion of colloidal gold reactions. We at Milledgeville, as we see more of this reaction, are beginning to place more confidence in it. Recently I have gone over the record of about 200 neuro-syphilitics, and we have found that this colloidal gold reaction almost always is present. You do not always get a typical paretic curve in neuro-syphilitics, and you do not always get a typical syphilitic curve, but if you have a colloidal gold reaction we look upon the case with a great deal of suspicion, regardless of the clinical findings. Our experience has been that sooner or later such cases show clinical symptoms, and we place a great deal of faith in it as a diagnostic measure.

The importance of this colloidal gold curve is its simplicity, and its value to the general practitioner.

2:

Dr. George L. Echols, Milledgeville:

I am very much interested in the paper just read, and

also in Dr. Swint's discussion. What Dr. Swint has found at Milledgeville, Dr. H. C. Solomon, of the Psychopathic Hospital at Boston, has also found.

There is one other thing not mentioned so far. In my work in treating neuro-syphilitics in Milledgeville—and this has also been verified at the Boston Psychopathic Hospital—we have found that neuro-syphilitics with a paretic curve, after they are treated for a while, improve and feel better, and when the spinal fluid is examined the reading is found to be going down. It is a very common thing, as the fluid clears up, for the reading to assume the syphilitic zone curve, and that is a very favorable finding.

3:

Dr. Kelley, closing the discussion:

I wish to thank both Dr. Swint and Dr. Echols for what they have said.

In his discussion, Dr. Echols spoke of a change from the paretic curve to the syphilitic curve. We find that this sort of a change greatly improves the prognosis,—offers a little hope. Through the courtesy of Dr. Chas. E. Dowman, I have been able to follow up a few of these cases.

HEMORRHOIDS.\*

By James F. Burdshaw, M. D.  
Augusta, Ga.

Before the history of medicine began, a knowledge of hemorrhoids existed. In Egypt there were "pile doctors" before Joseph was sold in bondage. "The Lord will smite with the botch of Egypt, and with the emerods" (Deut. XXVIII 27) is the threat of Moses against an impatient and rebellious people. "And he smote the men of the city, both small and great, and they had emerods in their secret parts" (1 Sam. V 9). "And he smote his enemies in the hinder parts; he put them to a perpetual reproach." (Psalm LXXVIII 66) are quotations from Holy Writ descriptive of the afflictions of the Philistines for their desecration of the ark of God, and indicate the views of antiquity concerning a disease most prevalent among the civilized nations of today.

The term hemorrhoids, according to its derivation, signifies a flow of blood, a hemorrhage. It is not altogether appropriate in the sense in which it is used, for frequently the disease exists without any bleeding whatever. Hemorrhoids, or piles, are tumors chiefly composed of dilated blood-vessels or blood clots situated beneath the mucous membrane or mucocutaneous tissue of the anus or rectum. There may be, or may not be pain, protrusion, and difficulty in defecation; the tumors may be entirely outside of the rectum, they may be inside, or they may be both

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inside and outside. The cardinal features are, dilatation of the veins, a swelling, and an increase in connective-tissue stroma by which the convoluted vessels are supported.

**Etiology:** For a disease which has been known so long, studied so much, and so thoroughly written about, it seems strange that no very definite and accepted theory as to its cause has been accepted.

**Predisposing causes:** Age, constipation, habits, environment, heredity, temperament, climate, seasons and sex.

**Age:** Hemorrhoids are most frequent in puberty and middle life, due to habits and constitutional conditions at these ages which are inclined to bring on engorgement of the hepatic system and pelvic veins, the menstrual periods in women, the development and exercise of the sexual organs in both men and women, the tendency to overeating and to dissipation, child-bearing and child-birth, muscular straining in exercise or labor, and constitutional diseases which are prone to attack at this period of life.

Next in frequency is old age, due to absorption of fat, relaxation of the muscles around the rectum, constipation, hardening of the liver, and atheroma of the blood vessels. They occur least of all in childhood, because of the fact that children's occupations and habits are regular and their diet is likely more uniform. Occupations which require severe muscular strain, heavy lifting, constant standing, or sitting in the erect posture are very likely to bring on the disease. Railroad and street car conductors, truckmen, laborers and miners are frequently its victims.

The habits, however, have much more to do with the production of hemorrhoids than occupation. The more civilized nations become, the more frequently are they affected with hemorrhoids. Sedentary habits, excessive eating, indulgence in stimulants and the luxuries and comfort

which are enjoyed by the higher classes, all tend to the production of piles. The large amounts of rich food and drink consumed by this class overcharges the hepatic circulation, and sooner or later, bring on congestion of the hemorrhoidal veins which ends in hemorrhoids. Good living, full diet, and moderate drink are not necessarily productive of the disease, provided enough active exercise is taken to use up the material absorbed. If the superfluous carbohydrates are not utilized, they congest the liver and, through it, the rectal veins. It seems somewhat contradictory to these facts to find the disease as frequently in the anaemic, temperate individuals as in the plethoric; the explanation of this is that muscular and nervous exhaustion result in general relaxation and dilatation of the venous system, and consequently piles develop.

**Heredity:**—Successive generations of a family suffering from disease is explained by the similarity of environments, habits and constitutional conditions. Their diet, methods of life and vocations are very much alike from one generation to another, and therefore they suffer from the same diseases. While there seems to be some hereditary influence in hemorrhoids it is a heredity of predisposing causes more than of the disease itself. If it were the latter, children would be frequently born with these dilated veins and hypertrophies instead of developing them later on in life.

**Temperament:** Patients suffering from hepatic diseases are often the subject of hemorrhoids. It is well known that melancholic, sallow, depressed individuals generally suffer from some disorder of the liver. However, temperament is not the cause but the same pathological conditions which brings about the one, also cause the other.

**Climate and Seasons:** The disease is comparatively more frequent in the very



hot and cold than in the temperate zones, due to the fact that in hot climates, the patient is subject to congestion of the liver and malarial conditions, together with relaxation produced by heat and lack of exercise. In cold climate people are active, subject to muscular straining and on the move constantly to keep themselves warm, some use alcohol and much clothing to protect themselves from the rigor, hence the difficulties of removing same and reaching convenient places for stool, this engendering a carelessness and irregularity, productive of hemorrhoidal disease.

Hemorrhoids are more likely to develop in the Spring because the system cannot consume the same amount of hydrocarbohydrates in hot weather as it does in cold. The portal circulation becomes congested and hemorrhoids appear.

**Anatomical Causes:** Man is the only animal in which the disease is at all frequent. The one essential anatomical feature that distinguishes man from all other animals is the erect posture. He is always upright during the larger portion of the 24 hours and as the weight of the blood column is proportionate to its height, the cardiac force must be sufficient to lift this weight. The distending force that is exercised upon the veins can be realized. Valves in a vein relieve the distention to a certain extent by preventing backward pressure, but veins of the portal system have no valves; they are practically upright in all positions, except when lying down, and if one is sitting and leaning forward over the desk, as at a sewing machine, the abdominal organs are pressed downward and backward upon them, causing portal obstruction.

The blood vessels of the rectum puncture the walls of the gut about three inches above the anus passing through the muscular walls in little button-hole-like slits and then divide into numerous branches, which are distributed to the lower end of the organ. Some claim these

slits serve as valves for the veins. Others claim they act as obstructions to the venous circulation, and whatever produces spasm, or peristaltic action in the muscles, causes constriction of the veins, congestion, and hemorrhoidal disease. The thickness of the arterial walls protects them from compression. The blood supply remains constant while its return venous flow is obstructed. Admitting the anatomical arrangement acts as valves for the veins, there would be but one valve between the liver and the rectum, which would be very ineffectual. It appears that the constant upright position of the human race, inducing thereby a constant pressure from a blood column of 14 inches or more in height, is the most plausible explanation of the prevalence of hemorrhoidal disease among men and women. The weight of the column and the cardiac force necessary to lift it being constantly active, it is not at all surprising that the thin-walled veins of the rectum are frequently varicosed, and then, too, the loose attachment of the mucous membrane of the rectum to the muscular walls leaves cellular spaces between the two in which the veins can be stretched in length and dilated in caliber, thus forming the convolutions which go to make up a true hemorrhoid.

**Sex:** The majority of cases found in hospitals and clinics are among males, 7 to 4. Women are more timid about consulting physicians for rectal troubles than men, and being accustomed to the loss of blood at menstrual periods, they do not attach so much importance to it as men. Some of the reasons why women should be more frequently affected than men: The monthly congestion of the pelvic organs, the pressure of displaced or pregnant uterus upon the rectum, traumatism of childbirth, the frequency of fibroids and ovarian tumors, and the habitual constipation in them, all tend to cause dilation and hypertrophy in the veins. Then, too, quite a number think, because they are females,

that it is some mild female trouble and is balanced by the menstrual flow. This theory is borne out by the fact that they suffer much more frequently from hemorrhoids during periods of menstrual suspension, gestation and after the menopause, than at other times. Bardenhamer states that it is no unusual thing to observe them at each recurring menstrual period, both conditions coming on and subsiding together and that he had seen many cases in which the menses cease for several months and the patient had regular periodical bleeding from hemorrhoids during this period. This may account for the disparity between the two sexes in this disease.

Exciting causes are constipation, drugs, diet, straining, clothing, external causes, other diseases, spasm and atony of the sphincter muscles.

**Constipation:** The passage of solid fecal mass distends and squeezes out the venous blood in the opposite direction, produces mechanical strain upon the veins and little blood pools in which they originate, causing a hypertrophy of the connective tissues, development of new capillaries and thus the hemorrhoidal tumor is formed. After this has taken place the distention produced by straining or the passage of hard fecal mass, causes rupture of the thin vessel-walls and there results bleeding piles and more or less congestion of the rectum.

**Drugs:** Resinous cathartics, apiol, cantharides, aloes and myrrh, savin, rhubarb and frequent saline purgatives.

**Diet:** Such substances as aromatic spices, peppers, mustard, highly seasoned sauces, radishes, pickles, excessive tea, malt, carbohydrates, sweet potatoes, etc.

**Strain:** Result of muscular strain from lifting heavy weights, dancing, sweeping, straining or long sitting at stool.

**Clothing:** Constrictions about the waist, tight bands or undue lacing, wearing of heavy skirts.

**External Causes:** Wounds, contusions, rough and irritating substances, as newspapers, corn cobs, foreign bodies, thread worms, parasites upon the external surface.

**Other Diseases:** Ulceration or stricture of the intestines or urethra, retroversion ante-version, procidentia, cystitis, prostatitis, urethritis, cardiac disease, chirrhosis of the liver.

Hemorrhoids are broadly classified as external and internal, and mixed. Those above the margin and out of sight, without the use of proctoscope, are internal, and those below and in full view are called external. The terms however, have a more definite meaning from an anatomical point of view. Internal are those developed from internal or superior hemorrhoidal veins. External develop from inferior or external vessels. The mixed are a combination of the two types.

External are classified as thrombotic, varicose, inflammatory, connective tissue.

Thrombotic are small oval or round tumors just below the skin or mucocutaneous surface. Color may be unchanged or may be light red to a dark blue, and in size from pea to walnut, single or multiple. They come on suddenly with sharp cutting pain, gradually increase in size, and usually attain their full growth within a few hours. A vessel rupture, blood extravasates in the surrounding tissue sometimes with a lot of tension, and if it is small and not situated within the grasp of sphincter will be absorbed without much inconvenience, but reversely situated, causes spasm of sphincter.

**Treatment:** Local anesthesia. Enucleate clot, making longitudinal incision, packing with small gauze for 24 hours, all under strict surgical technique, and usually cure up in 3 to 5 days.

**External Varicose:** This variety consists in a varicose condition of the subcutaneous



veins surrounding the anus, in bearing down the external plexus of veins dilate and distend. This takes place at every movement of the bowels on straining.

Symptoms: On this type the growth is of a slow progressive nature and forms a general swelling or cushion-like mass.

Treatment as a rule does not require any surgical operation. Remedy the constipation or obstipation by regulating the diet, cold enemata at some convenient hour, till bowels become habited to regular action. At bedtime use an ointment composed of tannic acid, stramonium and Bellodonna. Beware of drastic purgatives. Mild laxatives are preferable. Treatment of this type by injection has been advocated.

Inflammatory external piles consist of inflamed, swollen folds of the anus. They are pear shape, extending sometimes within the external sphincter. They may be mechanical or pathological. Anal or rectal ulceration, fissures, chancroids, kicks, falls, injuries or strains, sometimes cause this type.

Symptoms: There is a sense of heat, uneasiness and itching. Pain at first is moderate and may pass away. Upon irritation, the swelling returns and pain is aggravated. Sitting down is painful. Lying on the side with hips elevated is the most comfortable position. Defecation is dreaded, hence constipation. They are not so hard as thrombotic but very painful to the touch, and if very large, the mucous membrane will be dragged down, forming a part of the covering at the base of each tumor. Between two of them there will often be found a small fissure, ulcer, or excoriation, or a pocket, and occasionally a mass of feces, a small seed or foreign body and sometimes a small fistulous tract leading down below the muco-cutaneous tissue. They may ulcerate and slough or if the inflammation subsides, gradually shrink until they disappear or form connective-tis-

sue piles. The latter is their usual course. If the patient is in low physical condition and susceptible to infection, very grave constitutional symptoms may develop. As a rule they are the most painful of all hemorrhoids and distressingly so.

Treatment: Allay the inflammation by palliative treatment or radical removal of the tumors. (A cure.)

Internal Hemorrhoids: There are four varieties: Thrombotic, varicose, capillary, and mixed. The most frequent are varicose or venous. In the beginning there are congested vessels, pressure of the blood column, usual efforts of defecation, causing edematous tumors. These are ordinarily located at three points in the circumference, one on each side slightly in front of the posterior commissure, one at the right, slightly behind the anterior commissure, and occasionally one on left of anterior commissure. Between these prominent tumors are varicose and smaller tumors, forming a rosette of tissue. On dilatation of anus we have a beautiful case for Whitehead operation.

Symptoms: The two cardinal symptoms are bleeding, and protrusion. These do not occur until after the tumor has developed considerable size and prolapsed below the sphincter, which obstructs the return flow. They swell, the margin of the anus becomes edematous, causing severe pain with a constant sensation of weight and aching in the sacral region. Reflex disorders of the digestive organs, pain in the back, headache, colicky pains in the lower abdomen, vertigo, constipation due to the fear of having a movement lest a hemorrhage be brought on and anemia result.

The operative treatment of hemorrhoids is based on two principles, atrophy of tumors by shutting off blood supply, or radical removal by surgical operation. The

principal methods are gradual or forcible dilatation of the sphincter, cauterization, injection, the ligature, clamp and cautery, crushing, excision. The gradual digital dilatation of the sphincters under a general anesthetic causing an eversion of the hemorrhoidal mass is the preferable procedure, so the masses can be either removed by ligation or clamp and cautery.

Post-operative treatment of all hemorrhoidal cases is just as necessary as the operation itself. To prevent stricture, keep the sphincters dilated and see that all the denuded tissue has perfectly healed. If slow in doing so, stimulate by the local application of, say 10% of nitrate of silver, keeping the bowels regular after the third or fourth day. Previous to that time the bowels should not be allowed to move giving granulation tissue a chance to form before becoming infected by feces. A dressing of castor oil and balsam applied on a small piece of gauze also promotes the healing and keeping clean, as the circumstances will permit. As a general thing, these patients make better progress on their feet after the first week.

**Palliative Treatment:** Have patient rest in bed with hips elevated. Apply cold or heat internally or externally, as conditions suggest. Restrict diet. Give anodynes internally or externally and mild purgatives.

**Contra-indications for operation under general anesthesia** are nephritis, arteriosclerosis, cardio-vascular diseases, old age, chronic bronchitis, tuberculosis, etc. Operations may be done in a great many instances under local anesthesia by injecting deep on either or both sides of rectum, entering anterior to posterior commissure, with  $\frac{1}{2}$  to 2% cocaine hydrochloride, eucaine, novocaine or 1% quinine and urea hydrochloride. The latter holds its anesthesia much longer than the others, lasting for a few days in some instances, thereby controlling to a limited extent spasm of the sphincters.

## THE MENTAL DISEASE PROBLEM.\*

George L. Echols, Assistant Physician,  
Georgia State Sanitarium, Milledgeville, Ga.

### Scope of the Problem.

We are told that of all the hospital beds of the country, about one-half are occupied by patients suffering from mental diseases.

Dr. William A. White, in an address of February of this year, stated that 95 per cent of the Sing Sing prisoners were found to be afflicted with mental disease of some form; and from reliable studies of inmates in penal institutions, it appears that more than 50 per cent of the prisoners are suffering from mental disease of some form or type.

Today one in three of all disabled ex-service men in hospitals in the United States is a neuro-psychiatric patient.

From one-tenth to one-fifth of every State's expenditures is for the support of mental hospitals.

There are more mental patients in the public institutions of the country than there are students in its colleges and universities.

The suffering and misery of certain mental diseases only require mention; and added to this is the worry and anxiety felt by relatives and friends.

The individual and family economic loss from insanity could hardly be calculated.

From the statements just enumerated we see that we are face to face with a problem of vast importance—economic, social and humanitarian.

### Present Unsatisfactory Methods—Though Undergoing Improvement.

The mental disease problem can be faced in two ways: First, by sitting idly by and permitting the subject to take the path of least resistance—jails and asylums. And to reach the latter, the mentally sick has only one route—police station, sheriff, jail and court. Mentally sick, psychogenic or organic, but as real as nephritis or tuberculosis; branded as crazy, taken in custody by an officer of the law; passed through a court or commission trial to make his

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incarceration legal; and by the time he reaches the institution physician he is suspicious, non-cooperative and rebellious. The institution physician is burdened with two or three times as many patients as he should have in his care, and this usually necessitates hurried examinations. At stated intervals the patient is examined, and his conduct noted. The patient is left to a great extent to associate with the chronic insane, and naturally loses hope and interest. Great credit is due to the insane hospital officers and others who have recognized the above situation and are doing all in their power to break away from the above evils. The attitude toward mental diseases can be changed through a process of education.

A second or better way is through process of education. The people must be led away from the old asylum idea, and given a vision of the hospital for mental disease. We must get away from the thought that an individual is insane or crazy, and regard him as a person mentally sick. We as physicians must grasp the truth that there are many types of mental disease, and that they are about as treatable as physical diseases. Many types are preventable, and this is most certainly true of certain organic mental diseases. It has been estimated by the authorities of the Georgia State Sanitarium that 6 per cent of the resident patient population is suffering from mental disease traceable to syphilis. To cure all syphilitics sounds like an impossibility, but that does not change the truth of the statement: "Mental diseases due to syphilis are preventable." The same is true of alcoholic and drug psychosis; and partially true of other organic conditions producing mental diseases.

The writers and teachers of the past have given us exhaustive descriptions of the developed psychoses and the treatment of the same; but little has been said in regard to the pre-psychotic, or the early psychotic period. This pre-mental disease or early mental disease period certainly offers a great field for study. It is proper at

this point to stress the fact that those studying mental diseases are usually connected with mental hospitals handling committed patients in whom the disease is advanced far beyond the early stages.

If we are to prevent and cure mental diseases, our greatest hope is in studying and treating the patient in the pre-psychotic and in the early psychotic period. The writer wishes to stress that these stages do not exist in the mental hospitals, as committed patients are far beyond this stage.

We have now come to the main thought in this paper: The most treatable stage in mental diseases is not seen, studied or treated by the physician doing mental hospital work, but is seen by the family physician. The family physician sees more patients suffering from mental disease than from lobar pneumonia or diphtheria; and it is certainly proper that he should understand something of the fundamental principles of psychiatry. The writer urges that every physician, with no exception, buy a text-book on mental diseases and study the same carefully after he has bought it.

The State of Massachusetts has set the pace by amending her State Board Examination laws, requiring the applicant to stand examination on psychiatry along with the other fundamental subjects, as anatomy, physiology, materia medica, therapeutics, medicine, surgery, gynecology, etc. The writer urges that Georgia make similar amendment to her laws. Medical students, even in some of our best medical colleges, pass through their entire course of instruction with but scanty clinical training in mental diseases; and only five medical colleges give instruction during the "preclinical" years in the processes of the mind and their modification in disease. With the above-mentioned law in force, in a couple of generations our physicians will be somewhat familiar with mental diseases, and be capable of recognizing the early pointers or signs of the same.

These early pointers or signs of begin-

ning mental disease include such as swings of mood, exaggerated doubts and uncertainties, abnormal lack of decision, unfounded sensitiveness, uncalled for feeling of being at a disadvantage, feeling of inferiority, exaggerated anxiousness and timidity, sexual difficulties, visual tendencies, day dreamings, peculiarly warped mental attitudes, oddities of behavior, etc., etc. At this stage the individual is figuratively speaking at the forks of the road—one leading to mental health, and the other to insanity. At this point expert examination and advice will certainly do the most good.

There should be established mental clinics in the large cities, and certainly an out-patient department at every State hospital for the insane. With our improved facilities for rapid travel, why not let the patient be brought or come voluntarily to the mental clinic or out-patient department where he can be examined, observed, his troubles talked over and receive expert advice as to rest, treatment, commitment, etc? The recoveries in these mental clinics would be surprising. In case a commitment is advisable, let it be voluntary as far as possible. Let the patient come into the mental hospital with a full realization that he is mentally sick, and the great consideration is a mental improvement or mental recovery.

### Summary.

1. Mental disease is a staggering problem, both humanitarian and economic.
2. The present method of handling the insane, while undergoing much improvement, is far from satisfactory.
3. The medical colleges should give courses in mental diseases with as much thoroughness as the courses in other branches, medical and surgical. By this means the physician will be prepared to observe and treat the two important periods: the pre-psychotic and the early psychotic periods. It is in these two stages that

mental diseases will most easily be prevented and cured.

4. Large cities and medical colleges could maintain mental clinics. Every state hospital, without an exception, should build up and maintain a mental out-patient department to supervise furloughed patients, and to examine and advise questionable uncommitted patients who are presented for examination. Thus many cases of mental disease would recover without commitment, others readjusted by talking over their troubles, and others brought into the hospital with a much more favorable attitude for treatment.

### DISCUSSION:

Dr. N. M. Owensby, Atlanta:

Dr. Echols' paper is most opportune. There is no greater problem confronting the state today, whether viewed from a social, economic or medical standpoint. It is so great that one risks being accused of fanaticism or exaggeration if one attempts to discuss it. There are five thousand patients confined in the State Sanitarium today. We need and must have another of an equal size for the white insane. We need and must have an institution for the negro insane. We need and must have an epileptic colony. We need and must have a very much larger institution for the feeble-minded. These are institutions that we need and can fill today. The body politic must foot the bills for their maintenance. That means greater taxation. Each class of patients is increasing with a greater rapidity than any of you surmise. Therefore, after the institutions that we need today are filled we will have to keep adding to them. You gentlemen are largely responsible for this increase in these diseases. If you will regard every hysteric, neurasthenic or psychasthenic patient you have as a possible insanity case, and give them every attention known to medical science, if you will advise against the marriage of mentally defective and epileptic, if you will recognize and either treat or have treated all cases of insanity in its incipency or earliest stages, if you will advise against all marriages where there is a taint of syphilis, then you will have gone a long way towards reducing the mental disease problem and its attending sorrows.

Mr. M. A. Clark, Macon:

As one of those family physicians, may I say just a word? A great many things are laid at his door by the surgeon and by those treating the insane. We have been told to get books and study, and that is good advice. It has been said, too, that the fault is with the medical colleges, but although I graduated more than thirty years ago, I was taught a little about these things. After we find these patients on the borderline, how shall we give them the proper treatment in order to prevent them from going or being sent to those institutions? If we had the patients where we could control them we could prevent them from becoming psychopathic, but how shall we control them? There has to be education of the public as well as education of the physician. While I do not feel that it is necessary to defend the family physician, I would be glad if you gentlemen who have become expert in certain lines will kindly tell us family physicians how to prevent these things, and not throw the responsibility upon us. The doctor has given us a very valuable paper, and I hope that in his closing remarks he will tell us how to manage these cases.

I have heard that physicians treating insane patients begin to wonder if everybody is not insane, and we who treat nervous patients begin to think that everyone is nervous. I fear that more of us are on the borderline than we realize, and it is certainly an important matter. Whether it is due to lack of knowledge on the part of the family physician, or due to lack of knowledge of the internal secretions, is a question, but the matter is important and worthy of consideration by the profession.

Dr. R. T. Dorsey:

I am not a neurologist, and am not especially interested in nervous diseases, except from the standpoint of the general practitioner. The hospitals of our land are over-populated by the results of faulty and incomplete diagnosis. We have many potential mental cases that are going to the institutions later. Unfortunately for these sufferers, the signs and symptoms are not salient or pathognomonic and do



not arrest our attention as they should. We treat them as casual sufferers, and say they are only neurotics. Later we realize that while they were, of course, neurotics, they were potentially serious cases to be carefully studied. We should create a formula or skeleton by which to work. The one I use is as follows:

First of all, I think of constitutional inferiority. When that patient came into the world he was not given a square deal as regards his nervous makeup. Some people come into the world by inheritance endowed with an insufficient nervous system, so this question is necessary. Second, I think in terms of endocrines, which are often the silent cause of a hidden nervousness and are not detectable until you think in terms of endocrines. Third, I think in terms of the existence of two types of exhaustion, physical and psychic. We must ask questions in such manner as to leave no doubt. Many persons come seeking relief for some minor trouble when they are disturbed in their family or moral life. Fourth, local toxemia. The toxins constantly filtering into the system from bad teeth, tonsils, old appendicitis, etc., often affect the general health. Fifth, metabolic toxemias. We know little about these, but they can definitely bring about mental ill health. Then, sixth, I think in terms of unbalanced diet, the pre-pellagrins, etc., who later become insane. Then, seventh, I think in terms of the specific infections, the syphilitics, etc.

Dr. T. E. Gibbs, Gainesville.

The two papers on syphilis and this paper on mental disease are excellent, and I do not want to detract from anything that has been said, but to add to it. If possible, make as thorough an examination as you can, especially to determine syphilis. To arrive at a diagnosis, as Dr. Dorsey has already said, study the patient. These neurotic symptoms, I think, arise principally from fear. That term includes doubt, anxiety, uneasiness, worry, dread, etc. Question the patient, and you will find that he has no confidence. I had a patient who came to me for an operation for appendicitis, who had had vague pains in the back and was referred to me by two colleagues, but after making a thorough examination I could find no evidence of appendicitis. That man was in such a state of indecision that if I asked him if he was white or black he could not answer at once. I do not think that we thoroughly appreciate what causes the symptoms. They come about through environment, heredity, etc.

You want to get these patients on some occupational correction. It does not matter what this occupational treatment is, but make it something rational, something that the patient will understand.

Dr. J. G. Dean, Dawson:

Since I entered the practice of medicine, about thirty-seven years ago, I have noticed a great tendency to emphasize the practice of medicine as a science. That is very good. The tendency has been to increase medical education and to increase the time required for preparation. But I do not believe that we have ever looked on the side which we are now discussing with as much earnestness as we should. We need tact, the power to impress, in the practice of medicine. Do not understand me to advocate humbuggery. But, as we have increased the science of medicine and our knowledge, we have seen an increase in the number of isms. That doctor who is most able to approach his patients in a way to make suggestions is the doctor who can get the best results. You can apply the remedies a great deal better if you impress the patient through suggestion that he is really going to be benefitted.

Dr. R. C. Swint, Milledgeville:

This mental disease problem is a very complex one. The recent world war demonstrated to the layman, as well as to the general practitioner, the importance of being mentally as well as physically fit. In approaching mental problems we have to bear in mind a constellation of factors that might be operative. The factors may be exogenic, neurogenic, constitutional, psychogenic, etc. We cannot divorce the mind from the body—the mind is not a separate proposition. It has existed and grown up with the body. So when you have a patient who is maladjusted and begins to show these prepsychotic symptoms, the problem may be very complex, or more or less simple. I know of no one who has a better chance to make observations and aid in solving these problems than the general practitioner. This is a day of specialism, but the general practitioner should not think that he is left out because he is not a specialist. He has the health, both mental and physical, of his community in his hands, and he is one of the most potent factors in the control and destiny of these things. We have to look into the question of the kind of seed we are sowing, in what soil it is being sown, and in what environment the seed will grow. It is a long-drawn-out proposition, and the suggestions brought out in the paper as to the method of approach are worthy of consideration.

Dr. Echols, closing the discussion:

I wish to thank the members most heartily for the remarks they have made. They have been very beneficial to me. Some questions have been suggested, but it is absolutely out of the question for me to attempt to answer them. But will you not help me to answer them? I want you, please, when you go home, to bear this in mind, and whenever you run across an early case that looks like a psychosis, or good fertile ground for a psychosis to develop, watch it very carefully and write me the history, will you? If you will do that, I will thank you most heartily, and by our all working together we can dig out something. We have all seen these early cases, but we did not study them. Now let us study the cases that we find and see what symptoms we have in these pre-psychotic periods and then let us see what we can do for these cases, and in five or ten years we can make some progress. Let us have our medical students study psychiatry, and then each young practitioner will be studying mental diseases. Then, in two or three generations, instead of saying, "I do not want to deal with a crazy man," we shall say, "This patient of mine is mentally sick—let us see what we can do for him."

## THE X-RAY AND CLINICAL FINDINGS IN THE NORMAL CHEST OF THE CHILD. REPORT OF THE CLINICAL DIVISION OF THE COMMITTEE ON MEDICAL RESEARCH OF THE NATIONAL TUBERCULOSIS ASSOCIATION.

The value of roentgenography in determining the presence of pulmonary disease has long been recognized. Studies to determine the roentgenograms of various pathological lesions of the lung have been almost without number, yet much difference of opinion exists in the interpretation of findings, largely because no satisfactory observations have been made establishing the variations that may occur in the normal. To one observer, shadows noted are indicative of disease; to another, they are not evidence of a pathological process; to one, they represent lesions of clinical significance; to another, they suggest changes of no moment. The realization of this unsatisfactory state of affairs was widespread, but it remained for the Research Committee of the National Tuberculosis Association seriously to consider it and to set about to correct the shortcomings.

In the spring of 1920, that committee called together the collaborators in this work and instructed them to set about in ways of their own choosing to solve the problem, extended to them a financial grant and in order that the problem might be a very definite one, asked that the immediate study be limited to a consideration of the chests of normal children between

the ages of 6 and 10 years. The work was begun promptly and a preliminary report was made at the annual meeting of the association in May, 1921. The findings of that time were incomplete and because of the then limited observations, no very definite conclusions were drawn. However, the practical need of a solution of the problem was apparent. Study was continued throughout 1921 and the first four months of 1922, and the data independently assembled were jointly discussed to evaluate them. Although each pair of workers carried on its investigations without intergroup consultation, although each approached the subject from a different angle and when first met held views apparently not altogether in accord, it was agreeable to find that an exchange of conclusions disclosed almost an unanimity of opinion. The findings of these six observers—three clinicians and three roentgenologists—are presented to you for your consideration:

Theoretically, the normal child is one of ideal height, weight and development for his age, without subjective or objective evidences of deformity or of disease and without residual changes due to antecedent pathological processes. Practically, a normal child is one of average height, weight and development for his age, symptom-free and without signs of disease. Each such individual, in more or less relation to his age, will have been ill more or less often and as a consequence may be expected to show variations from the ideal, not because of present disease, but as a result of residual changes that persist. An appreciation of these facts makes it apparent that the findings, clinical and roentgenographic, in normal children as we meet them will vary greatly from any fixed standards and still must be considered as variants of normal.

The clinical data dealt with in this report were obtained by careful examination of apparently healthy children between the ages of 6 and 10 years. All children who showed signs of disease were excluded from the series. Individuals from various

strata of society, foreign and native born, residents of urban and of rural communities, school children and children residing in institutions, children exposed to tuberculosis and some without a history of such exposure, children with and without a history of previous infectious diseases, all symptom-free, and of an approximately normal height and weight for their ages, were studied. A history of each individual was recorded and in making the examinations of the chest, care was always observed to have the child relaxed and to see that no cramped or unnatural posture was assumed, for, as is well known, faulty position may lead to findings that cause confusion in interpretation. In addition, a tuberculin test was made on every child. The clinical data were then assembled and after the roentgenologist had interpreted his plate independently, the clinical and roentgenographic findings were correlated.

In all, over 50 children were thus studied and as a result some definite conclusions seem warranted.

As in the adult, so in the child vocal fremitus is more marked over the right upper chest than over the left.

It is generally stated that the percussion note elicited over the lungs of normal children within the age limits under consideration, is fuller, more tympanitic, of higher pitch and more resilient than that noted over those of adults, and that frequently the tympanitic quality is quite outspoken, especially over the lower lobe of the left lung. Although in general our observations confirmed this view, we have been impressed by the fact that in an appreciable number of such children, the note obtained on percussion over the lungs is indistinguishable in quality from that elicited over the lungs of normal adults and that the usual resilience of the note is lacking. These findings, in many instances, have an analogue in shadows noted in the x-ray films, shadows indicative of increased density along the bronchial tree, similar to those seen in the plates of normal adults. This correlation



of the findings on physical examination and on x-ray study is more constantly possible in studies of the upper half of the chest. When minor changes, similar to those discovered by x-ray examination of the upper lobes, occur in the bases, they usually escape detection on physical examination. In those instances, in which no shadow is found to explain the deviation of the note from the generally accepted one, it is our belief that the lack of resilient quality may be due to a decreased elasticity of the chest wall.

The so-called tympanitic quality of the percussion note over the left base may be increased, decreased or be entirely lacking, depending upon the degree of distention of the stomach or colon, the curvature of the spine, and may likewise vary with the position of the diaphragm or with the posture of the child during the examination. The note over the upper thorax is often the same on the two sides. Kronig's Isthmus averages 5 to 6.5 cm. in width. The lower margins of the lungs posteriorly are at the level of the 10th or 11th rib and descend from 1.5 to 3.5 cm. during forced inspiration.

A just detectible diminution of resonance over the apical regions is of no significance unless associated with a modification of the breath sounds in those areas or with other abnormal auscultatory findings.

It is generally accepted that normally in childhood, the breath sounds have a harsh, sharp character, with expiration longer and better heard than in the normal adult. This so-called puerile breathing is physiological and though it may seem trite, let it be emphasized that this exaggerated vesiculo-bronchial respiratory murmur, especially well heard in the areas overlying the great bronchi (i. e. anteriorly at the level of the first interspace and the second rib just lateral from the sternal margins, and posteriorly, particularly on the right side, at the level of the second to the fourth spine) is often incorrectly interpreted as evidence of pulmonary disease. An auscultatory finding that has not

been pointed out, or at least has not been emphasized, has come forcibly to our attention in carrying out this study. Just as the full, deep note or higher pitch characteristically elicited by percussion of the child's chest is often replaced in health by a note more like that produced when one percusses the normal chest of an adult, so, on auscultation of a child's normal lungs, the exaggerated or puerile breath sounds may be lacking, and instead the so-called vesicular respiratory murmur characteristically present in adult life is heard. This finding, regarded by us as a physiological variation, has been noted as early as the age of four years and may perhaps occur in younger children. It is more readily appreciated and more often found than the variation in the percussion note just described. In more than 50 per cent of the children in which this type of breathing was heard, examination with the x-ray gave findings like those obtained by a study of normal adult chests. In fact, the agreement of clinician and roentgenologist was so constant that we have come on the basis of these variations to designate the chest of normal children as of "puerile" or of "adult" type. The essential fact to be stressed is that so-called vesicular respiration is heard with great frequency in normal children, and is to be regarded as a variation of normal and not necessarily as an indication of disease.

These variations and those of the percussion note are more generally found in children with a history of infections of the respiratory tract. No satisfactory explanation for this finding is offered. It may be due in part to altered resilience of the chest wall, a suggestion supported by the fact that in some instances in which it was noted, diminished elasticity of the thoracic wall was apparent on percussion. It may stand in relation to variations of elasticity of the parenchyma of the lung. It may be due to a relative narrowing of the lumen of the bronchial tree. It is hardly to be considered evidence of increased density of respiratory tissue, for, theoretically, at least, that should lead to

a modification towards bronchial breathing.

Concerning the whispered voice sounds, little comment needs to be made other than to emphasize their loud transmission often with syllabation over the region of the major bronchi. Auscultation of these sounds over the upper thoracic spine of the children has led to the conclusion that D'Espine's sign as indicative of enlarged tracheo-bronchial lymph nodes is, to say the least, of doubtful value. In 23 of the children this sign was elicited without other signs of a mediastinal mass and without any corroborative evidence on x-ray examination. In 3 the sign could not be elicited, although from the x-ray plate it might have been inferred that it should be. Eustace-Smith's sign is so generally present in normal children that it is of little or no practical diagnostic worth. The presence of these two signs, together with impairment of resonance in the interscapular region is all too frequently made the premises for a diagnosis of tuberculosis of tracheo-bronchial lymph nodes. This is unwarranted for, as indicated, these signs are unreliable evidence of a pathological condition and the determination of a diminution of resonance in the interscapular region requires such a nicety of technic that even masters of percussion disagree as to the presence or absence of significant findings in this region of the chest.

A year ago, in the preliminary communication to this society, we stressed the importance of the role that antecedent infections might play in the production of areas of increased density within the respiratory tract. (Bronchial tree, parenchyma of the lungs, etc.) This fact is re-emphasized, for further study has established the importance of it. Not only may recognized or remembered infections of the bronchi and lungs be responsible for alteration in these tissues, but other diseases not ordinarily considered of significance in this regard may be causal of such changes. For example, our observations indicate that after measles, pertussis or

tonsillar infections, areas of increased density radiating from the hilum into the bases especially, occur with great frequency. Such lesions generally are not discoverable on physical examination and would be unsuspected but for the use of the x-ray. They are referred to in the clinical part of our joint report in order to point out the need of a careful history as well as examination in all individuals, before proceeding finally to interpret the findings of the roentgenologist. By way of digression, it may be interesting to point out the fact that though measles and pertussis have been known to produce lesions in the upper air passages, involvement of the lower tract has been considered a complication and was thought to occur only when evidence of bronchitis or of broncho-pneumonia were discovered. Our observations indicate that there may be a mild inflammatory process throughout the respiratory passages in a large percentage of the so-called uncomplicated cases of these diseases. This suggestion warrants further study in relation not only to the infections under consideration but also other infectious diseases. That such shadows, mediastinal and basal, noted in children who give a history of uncomplicated measles and pertussis are evidence of healed processes is evidence by the experience that similar shadows of like origin have remained unchanged and without the development of clinical symptoms in a series of children observed from 3 to 5 years. Such changes must be properly evaluated as indices, not of present disease, but of lesions past and healed, not as warrant for the diagnosis of present illness and the institution of treatment, but as scars of infections met and overcome.

Most of the children included in this study were tested with tuberculin—some were given a cutaneous test with old tuberculin (Pirquet)—others were tested by the intracutaneous method. (Craig).

The foregoing facts have been detailed at some length to establish the major thesis that, clinically, the ideal, normal child is a hypothetical impossibility. Children,



apparently healthy, symptom-free and active, show on careful examination many deviations from fixed standards, variations that must be interpreted as within physiological limits; standards of height and weight must be elastic; measures of resonance and of resilience of the chest must not be rigid and estimates of acoustic phenomena must permit of a range of difference from the ideal. These facts, clinical experience establishes beyond peradventure, and they suggest a corollary, namely, that x-ray examination of the chest of such children may be expected to show comparable deviations from a fixed ideal roentgenogram.

The studies reported, fortified by past experience, warrant the following conclusions:

(1)—The data obtained on percussion and auscultation of the lungs of normal children show wide variations from a fixed standard. These variations are usual and are considered to be within normal limits.

(2)—Inasmuch as the changes referred to are dependent often upon alterations that persist as the residua of past infections of the respiratory tract, it is obvious that a careful anamnesis, with special reference to all infections, is necessary if diagnostic errors are to be avoided. Even a history carefully taken is often unreliable, as minimal infections are soon forgotten by many and among the unintelligent classes even more significant indispositions are not readily recalled.

(3)—Failure properly to evaluate these deviations from a fixed standard will often lead to the unwarranted diagnosis of disease and to even less justifiable treatment.

(4)—With a proper appreciation of the widest variations that the normal may present from the ideal, the informed clinician is better able correctly to understand the findings of the roentgenologist, and each, co-operating with the other, is less liable to error.

(5)—D'Espine's sign as indicative of enlarged tracheo-bronchial lymph nodes is of little value.

(6)—Recognition of and familiarity with the foregoing data is of cardinal and practical importance to every patient, potential and established. Without a proper appreciation of the facts set forth, no intelligent differentiation between a normal and an abnormal respiratory tract can be made.

In brief, to establish the presence or absence of disease, it is imperative that all data—clinical, laboratory and roentgenographic—must be evaluated and correlated and that no one fraction of the evidence be stressed to the exclusion of the others

(Signed)

C. R. AUSTRIAN,

H. R. M. LANDIS,

KENNETH D. BLACKFAN.

May 6, 1922.

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Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****RABIES IN GEORGIA.**

Much publicity has been given recently to the epidemic of rabies in Georgia, but little mention has been made of the deaths resulting from this disease. There may be doubt as to whether the dog which bites a human is mad and as to the number of deaths from all dog bites, but there can be little doubt as to the diagnosis in those cases which are fatal, since such cases are usually seen by more than one physician.

The census reports for 1921 are not yet published, but I have secured the number of deaths from this disease during that year from the different State departments. From 1900 to 1921, inclusive, there were 1,296 deaths from hydrophobia in the registration area in the United States. There

has been a marked decline in the number each year since 1906 when the rate per 1,000,000 population reached its highest point. This decline is evidently due to the establishment of Pasteur Institutes and the free distribution of the preventive treatment which before that time was restricted to a very few states and to commercial establishments. For the last 15 years the rate has declined from 2.02 in 1906 to .46 per 1,000,000 population in 1920. The variations are not alone due to the admission of new States to the registration area for some of the older States show continually a higher infection than those recently admitted. If the States are studied separately the variations found in the mortality rates in the individual State must be ascribed to some as yet unexplained element.

With three exceptions, West Virginia, Alabama and Georgia, all those States East of the Mississippi River were included in the registration area in 1921. The test of Georgia's death records covered the months which showed a registration of over 90 per cent of the actual occurrence of deaths. For that reason Georgia's record is compared with those of the other States. West Virginia and Alabama reported no death from rabies in 1921.

Eight States, Maine, New Hampshire, Vermont, Pennsylvania, Maryland, Wisconsin, Mississippi and with West Virginia and Alabama making ten, showed no deaths from that disease in 1921. Ohio had the greatest number of deaths, 15; Georgia came next with 8; then New York with 5; Tennessee, Massachusetts and South Carolina with 3 each; Kentucky, Virginia and Rhode Island with 2, and Florida, North Carolina and New Jersey with 1. One of the deaths charged to Georgia originated in South Carolina but died in a hospital in Georgia.

The statement of the gross number of deaths is not a fair statement but a rate based on the population is fair. The rate in Rhode Island was 3.3; in Georgia, 2.76; in Ohio, 2.60; in South Carolina, 1.78; Ten-

nessee, 1.28; Florida, 1.03; Virginia, .86; Kentucky, .82; Massachusetts, .77; New York, .48; Illinois, .46; North Carolina, .39; Indiana, .34, and in New Jersey .31 per 1,000,000 population.

Of the States west of the Mississippi, 13 reported no hydrophobia deaths during the year. There was 1 death in Utah, 2 in Arizona and Kansas, 4 in Oklahoma, 6 in Texas, with 4,663,229 people, 6 in California, with 3,426,861, and 8 in Missouri, with 3,404,955 people, as compared with 8 in Georgia, with 2,895,832.

It would seem from these figures taken from apparently reliable sources, the State Health Department's records last year shows that as Georgia next to the greatest number of death from this disease regardless of population and next to the highest death rate from this disease, that the publicity recently given this matter was not based altogether on hysteria. And as Georgia's death rate from hydrophobia was six times greater than that of the registration area for 1921, there is good and solid grounds for very sober thought on the part of the medical profession and the people as to the prevention of rabies rather than to treat the matter lightly.

If the legislative bodies of the State prefer to adopt the more expensive course and provide the prevention for the disease after the individual is bitten rather than to exterminate the worthless curs which infest our streets and highways, then the sane course to pursue is to take the Pasteur treatment after being bitten by a dog, for laboratory authorities will not take the responsibility and advise against the treatment when the symptoms are suspicious and physicians who have experience in the treatment of the disease refuse to advise against its use when the dog cannot be examined.

I believe that the policy of both the former and the present secretary is sane, that the physicians can diagnose this disease and also that Georgia's dogs are especially infected with hydrophobia, since Georgia, with only 2.7 per cent of the population of

the United States, had 9.7 per cent of all the deaths in this nation during 1921.

W. A. DAVIS, M. D.

## COMMUNICATIONS

### Post-Graduate Study in Vienna, Austria.

In May, 1922, we published a communication on "Discrimination Against American Physicians" doing post-graduate work in Vienna, Austria. The following discriminations were put forth in this communication:

#### A Few Illustrations of Discrimination.

In the official program of the Viennese Medical Faculty for post-graduate courses to be given October, November and December, 1921:

Docent Elias announces a course for metabolic disorders: Fee 500 crowns per hour of his time (if taken by Austrians); the same course he offered to the A. M. A. for five dollars per hour, or according to the exchange value of the dollar at that time 40,000 crowns per hour!

Docent Stein announces a course for skin diseases and cosmetics: Fee 400 crowns per hour of his time (if taken by Austrians); the same course he offered the A. M. A. for five dollars per hour—40,000 crowns per hour from Americans!

Docent Denk announces: "Selected Chapters from Special Surgery," for 250 crowns per hour of his time (if taken by Austrians); from the A. M. A. he asks five dollars per hour of his time—40,000 crowns!

In January and February, 1922, when the dollar went up to 9—10,000 crowns in exchange:

Docent Hirsch asked in his course, "Anatomy and Pathology of Nose and Sinuses," from old foreigners, 6,000 crowns for one hour of his teaching time; from Americans, four dollars—36,000 crowns.

Prof. Kyrle, in a skin course given in February to two Swiss, one Egyptian and three Americans, asked 30,000 crowns from the Swiss and Egyptian, and 60,000 crowns from the Americans—and they paid it!

The following is a second communication:



"The American Medical Association of Vienna wishes to have you announce through the columns of your Journal, the restoration of friendly understandings between their organization and the teaching body of the University of Vienna.

"A special committee, elected by the association, after a thorough investigation of the charges of discrimination against Americans, which were reported by members of our association and published in our recent memorandum to your Journal, find that the men who made the accusations of discrimination were either unable or unwilling to substantiate these charges under oath. Further, the courses in question were not so-called book courses and consequently were not under the control of the A. M. A. of Vienna.

"It is the sentiment of this association, that the men of the teaching body of the University of Vienna have suffered by this unjust criticism.

"We further wish to state, that through the efforts of our special committee, working with a like committee from the teaching body, sufficient numbers of book courses in English in all branches may be had at prices of from \$3.00 to \$5.00 per hour for the group, taking such courses.

"We are very glad to announce this return of friendly relations between the teaching body and our association and hope that this communication will be given the same publicity as was given our former memorandum."

"JOHN J. GETZ."

This is like "stuffing and stuffing John's hat band until it busted" and then begging to make amends. As a member of the American Medical Association of Vienna, Austria, I know American physicians have always been very liberal financially. I also know before the World's War that the American physician was treated with all consideration that could be expected and that financial arrangements were reasonable. Through the past hostilities this strong support of the post-graduate work by the American physicians seems to have been forgotten, and as Vienna is no longer

the Mecca for post-graduate students for the entire world, the American physicians would probably obtain unparalleled advantages in post-graduate work in his own land and in his own country, so that if he must be robbed he can be robbed at home where he has a chance of getting it back. Let's go slow until we have more proof that all physicians will have a square deal in Vienna, regardless of nationality.

PRUITT.

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Resolutions adopted by the Muscogee County Alms House Board at their regular meeting held June 14th, 1922.

#### TUBERCULOSIS PATIENTS.

Whereas, It has authentically come to our attention that there are now sixty-seven (67) known cases of tuberculous patients in this county. Muscogee County is third in the state of Georgia—Fulton and Chatham being the only counties exceeding our own unfortunate number. Practically all of these patients are without proper care and treatment for this dreaded disease. The contamination they spread through the city and the county is hardly possible to estimate. We realize that if an adequate sanatorium were maintained by the State of Georgia, a great number of—if not all of these unfortunate patients—could be given the most expert attention and treatment, and,

Whereas, After careful investigation, we find that the present State Sanatorium, under its able superintendent, Dr. E. W. Glidden, Jr., with the most meagre equipment, is able to treat only about one-fourth of the cases of the State—and that even under his handicap his percentage of cures are much higher than any other institution of its kind in the South. In addition to this condition, we find that the present buildings are so crowded, that there are many patients constantly on the waiting list, some only slightly infected, who could perhaps be permanently cured in short order—and yet they have to be sent home before they are completely out of danger to themselves and the rest of the community where they may reside—

on account of the inability to house them at the institution designed for the purpose.

We also find that there is no institution for the care of colored tuberculous patients, and this fact is most unfortunate, for we are most certain to realize upon thought, that these colored tuberculous patients can infect the entire population of the city, county or State—unless they, too, can be put into an institution where they can be properly taught to care for themselves and to protect others.

Therefore, be it resolved, That we go on record as advocating an adequate appropriation from the state funds at this session of the Assembly to build and equip a modern sanatorium for the treatment of all worthy cases of this kind in this State—and should the State Board of Health approve—the present Sanatorium be used for colored tuberculous patients only.

We wish especially to commend the earnest, successful work of the present sanatorium Superintendent, Dr. E. W. Glidden, Jr.

Respectfully submitted,

JNO. J. HARRIS, Chmn.,  
DRANE BULLOCK,  
WALTER MILLER,  
GEO. B. PHILIPS,  
W. H. BLANKENSHIP.

### THE HIGHER EDUCATION OF CHIROPRACTORS.

What is your favorite literature? Detective stories? Mystery stories? Humor? Have you ever read the publications issued by the various species and subspecies of the chiropractic cult—for there is, as you know, a lack of unanimity among the chiropractors. One particularly choice piece of contemporary journalism is issued by a chiropractor factory in Fort Wayne, Indiana. Its July, 1922, issue makes good hot weather reading. The editor discusses a "model bill," recently drawn up by those chiropractors of Indiana who belong to a different subspecies from those represented by the publication in question. This Fort Wayne journal views the bill

with disfavor. It says, with refreshing naivete:

To begin with there is absolutely no need of a Chiropractic licensing and examining board in Indiana today. The existing lot of Chiropractors in Indiana cannot be improved upon. You are not being persecuted or prosecuted, you are left severely and strictly alone to practice your profession without let or hindrance from any source or any group of any kind. In fact, Indiana today is the best Chiropractic State in the entire country. Chiropractic conditions are as near ideal as it is humanly possible to approach that condition.

But the fact that Indiana is the home of the free, chiropractically speaking, is not the only objection this journal has to the proposed bill. It seems that the bill would require applicants for chiropractic examinations to submit satisfactory proof of the possession of a preliminary education, equal to that of a high school. Perish the thought! As the editor says:

How many Chiropractors in Indiana today could qualify under that rule? Of all the Chiropractors in Fort Wayne, I do not happen to know of one that is a high school graduate. In fact, I believe that the total number in Indiana able to comply with that ruling would be less than two per cent of all the Chiropractors in the State.

From the point of view of the owner of a chiropractic "college" the sentiments just quoted are eminently logical. It would be entirely unfair to chiropractic schools to insist on matriculants being educated human beings. What educated human being would ever attend a chiropractic school? Of course, from the point of view of public interest—but that's another story.—Journal A. M. A., July 15, 1922.

### COMMUNICATIONS.

June 28, 1922.

Dr. Allen H. Bunce, Sec.  
Atlanta, Ga.

Dear Sir: In the current issue of The Journal appears notice of action of council in reducing annual dues in case of re-



cent graduates, etc. There is nowhere in our constitution or by-laws any provision for payment for "part of year;" neither can I find any authority therein for such action of the council. Regardless of the wisdom of the bargain day idea, I protest their presumption of authority.

Very truly,

O. H. WEAVER.

June 28, 1922.

Dr. Allen H. Bunce,  
Forrest Avenue,  
Atlanta, Ga.

My dear Doctor: I am enclosing a circular letter addressed to the Medical Profession by Dr. Abercrombie and mailed to the individual physicians. In looking over the report for May 1,004 errors and omissions were found which had been made by 649 individuals, approximately 488 of which occurred on death certificates and 51 on birth certificates. With Georgia's admission to the registration area we were permitted to use the franking privilege and in this way saved the State the postage on the 361 corrections on deaths and the physicians the expense of returning the corrections, but the use of the Federal form requires more time than the form which we previously used.

A great many errors occurred on the death certificates due to the carelessness in stating the cause of death and I will thank you very much if you will assist this bureau, either editorially or otherwise, in getting the medical profession to state the cause of death more carefully. The records of Georgia must not show a greater percentage of such errors than the other States with the same population and I cannot correct the errors without the assistance of the physicians, and if they will write the cause of death specifically on the original certificate, such corrections will not be necessary.

Yours fraternally,

W. A. DAVIS, M. D.,  
Director.

June 24, 1922.

My dear Doctor:

I am appealing to the medical profession of Georgia to assist the State Bureau of Vital Statistics in the proper classification of deaths in order that the reports of Georgia, which will be published in the future by the Census Bureau, may not show a greater number of ill-defined causes than the other States.

On account of the number of deaths which occur without a medical attendant many of the causes of death cannot be classified. This condition exists especially in the Southern States, but the indefinite causes of death given by the medical profession add to the number of ill-defined materially. As an example, paralysis, cancer, blood poison, septicemia, cardio-vascular-renal disease, stomach trouble and many other indefinite terms are written on the death certificates by physicians. This class of deaths must of necessity go into the list of ill-defined.

In writing the cause of death, please be specific. With reference to cancer, give the location or organ. There are many forms of paralysis; please state the form and cause, if possible. Blood poison is an indefinite term and may apply to puerperal septicemia or syphilis, and like the word septicemia cannot be properly classified unless the exact cause is given. The term, cardio-vascular-renal is a combination, as you know, and the director who edits the cause of death cannot form any idea as to which was the primary or secondary cause of death when such a term is used. Of course, stomach trouble, kidney trouble and heart trouble are also indefinite.

We are having sent you from the Census Bureau a little booklet called "Physicians' Pocket Reference to the International List of Causes of Death." Please preserve this little book for reference, as it gives a list of the undesirable terms.

Thanking you for your co-operation, I am,

T. F. ABERCROMBIE,  
Commissioner of Health.



### DR. J. CHESTON KING OPENS NEW SANITARIUM.

The last few years has seen the fulfillment of the claim and the ambition of Atlanta, to being the medical center of the Southeast. Nothing has contributed more to the permanent establishment of this claim than the new, enlarged and improved quarters of the leading sanitariums and hospitals.

A few days ago this writer was invited to take a little automobile ride out through the country over one of the finest paved roads leading out of the city. After going out about sixteen miles we arrived within a short distance of Stone Mountain, where, in a beautiful setting of stately oak trees, wide expanse of lawn, flowers and sunshine, with a splendid view of the mountain, stands the beautiful new sanitarium of Dr. J. Cheston King and W. A. Gardner. We entered a spacious reception hall beautifully furnished, on the left of which are the offices, laboratories, examining rooms, etc., and a large, pleasant dining room overlooking the tennis courts. Immediately in back of that is the most scientifically outfitted kitchen that I believe can be found in Atlanta with its own ice-making and refrigeration system. Coming back to the reception room we stepped to the right down a short hall, out of which opened daintily furnished rooms finished in soft French gray with hot and cold water in each; also a delightful small private dining room, where I am sure Dr.

King's professional friends will be more than delighted to have a meal when they know what a famous cook he has persuaded to demonstrate her culinary arts there.

Going up the broad stairs we arrived in a large, quiet rest and reading room, next to which is a writing and smoking room; on each side are the same dainty private rooms as are found on the first floor, the end of one of the halls leading into an immense auditorium to be used for all kinds of entertainment, moving pictures and equipment to employ restless fingers. It will seat about 350 people. There are beautiful tile baths and showers. On the third floor are two immense wards, with lots of windows for sunshine and fresh air, all finished in pure white, with hot and cold water. Across the entire front of the sanitarium on the first and second floors are spacious verandas that are entered by French doors from the various rooms. The entire plant is heated by steam. Last, but not least, we found that it is a sanitarium in the sense of laboratories sanitary equipment for the care of the sick, refined trained nurses and attendants, with the added advantage of having the atmosphere of a charming home where everything in the world will be done for the comfort of its guests. We also visited the beautiful six-room apartment that is occupied by Dr. W. A. Gardner, resident physician of the sanitarium, and is located next to the main building within the same grounds. The sanitarium



stands upon an eminence which overlooks the station of Stone Mountain on the Georgia Railroad and nature's wonder (Stone Mountain), is also on the State highway from Atlanta with the advantage of having two bus lines to Atlanta as well as the street car.

J. C. B.

#### FIRST DISTRICT MEDICAL SOCIETY.

The First District Medical Society held its mid-summer session at Savannah on August 9. All those who were interested in the benefits of a good scientific program combined with the pleasures of Tybee were cordially invited to be present. The society held its annual election of officers at this meeting.

The First District Medical Society held its semi-annual session at Statesboro March 22, 1922, with the president, Dr. J. O. Strickland, of Pembroke, in the chair. The scientific program was as follows:

Some Observations On Tonsillectomy—Dr. F. S. Osborne.

Discussion—Drs. W. R. Dancy, J. W. Daniel, of Claxton; A. J. Mooney, E. S. Osborne.

Hypertension, Its Cause and Treatment—Dr. J. W. Daniel.

Discussion—Drs. A. H. Bunce, H. Y. Righton, J. O. Strickland, R. V. Martin, G. R. White, J. W. Daniel.

A Case of Dermoid Cyst—Dr. F. F. Floyd.

Discussion—Drs. G. R. White, F. F. Floyd. Gonorrhoea in the Male—Dr. H. Y. Righton.

Gonorrhoea in the Female—Dr. W. H. Myers.

Discussion—Drs. G. R. White, Chas Usher, A. J. Mooney, E. S. Osborne, R. V. Martin, H. Y. Righton, J. L. Hiers, W. H. Myers.

Surgery of the Gall-Bladder and Ducts—Dr. Chas. Usher.

Discussion—Drs. L. W. Williams, J. W. Daniel, A. J. Mooney, H. Y. Righton, Chas. Usher.

Tumors of the Breast—Dr. G. R. White.

Discussion—Drs. A. H. Bunce, G. R. White

Pruritis Ania—Dr. G. L. Touchton.

The society is indebted to the Bulloch

County Medical Society for a most enjoyable meeting.

#### CHATTAHOOCHEE VALLEY MEDICAL ASSOCIATION

Chattahoochee Valley Medical Association held its Twenty-second Annual Session, Warm Springs, July 11 and 12, 1922. A large attendance was present and a scientific program of 53 papers was rendered. On Tuesday night, July 11th, at 8:30, "High Brown Breach of Promise" was presented by members of the association. Each character in this play was a credit to the theatrical profession. A large attendance was present and each one went away agreeably surprised. Barbecue was served at 1 o'clock Wednesday. As usual, everyone attending this meeting had a good time and returned feeling as if he had been on a vacation.

#### A CRIME AGAINST THE RACE.

Although 80 per cent of the babies in the United States are born with a chance to be healthy, statistics show that only 17 per cent grow up with normal bodies! One million children in the United States today have tuberculosis; one million have defective hearing; five million have defective eyesight, and six million are suffering from malnutrition due, chiefly, to ignorance or neglect on the part of the mothers!

Because of these shocking conditions the Delineator—a magazine read by a million women—has persuaded Dr. L. Emmett Holt, Dr. Ralph Lobenstine, Dr. Henry L. K. Shaw, Dr. William Parker Lucas, Dr. Thomas W. Salmon, and Dr. Owen R. Lovejoy to give to the average mother the benefit of their scientific knowledge. These well-known specialists are writing a series of articles that will appear in the Delineator every month for at least a year.

Dr. D. B. Ware announces the opening of offices at 211 Dhrumor Building, Asheville, N. C. Surgery and gynecology.

Mr. and Mrs. John William Bennett announce the marriage of their daughter, Juanita, to Dr. Benjamin Harvey Minchew, on Wednesday, the fifth of July, nineteen hundred and twenty-two, Waycross, Ga.

## REVIEW OF THE LITERATURE OF SYPHILIS IN INFANCY AND CHILDHOOD.

**A Review of the Literature of Syphilis in Infancy and Childhood.** From the Department of Pediatrics, Washington University. White brings up to date (December, 1921), Jeans' review which covered the literature on this subject up to April, 1920. (Jeans, *American Journal of Diseases of Children*, July and August, 1920.)

**Incidence.** Jeans and Cooke found incidence of hereditary syphilis at birth to be 3 per cent; Ross and Wright found 3.5 per cent; Burhans, 1.5 per cent; Royster, 12.5 per cent. The incidence of 3 per cent (Jeans and Cooke) and 3.5 per cent (Ross and Wright), are based on the entire population of the two towns studied.

**Relation of syphilis to infant mortality.** Morgan estimates that 30 per cent of 2,000 miscarriages and stillbirths were due to syphilis. Solomon and Solomon estimate the average birth rate per family (syphilitic) as 2.05 and number of living children 1.62. In the same type of population taken at random, the average birth rate was 3.8. Williams found syphilis responsible for 34.4 per cent of fetal deaths. Warwick found 9.5 per cent of deaths due to syphilis in 200 necropsies performed on babies who were stillborn. According to Morgan, 90 per cent of deaths from syphilis occur during the first year. Kaufmann-Wolf and Abrahamson report total mortality at least 80 per cent when mother was infected, and under all conditions about 50 per cent.

**Hereditary transmission.** Placental transmission of syphilis to offspring is an accepted fact. Data obtained by Fischl and Steinert confirm the theory and confirm Profeta's law, to the extent that seventeen apparently healthy infants failed to

show any sign of syphilis, although their mothers were in the most contagious phase of florid syphilis. Immunization by way of the placenta before birth and by suckling afterwards will have to be accepted in these cases, according to the authors.

Strains of spirochete, the interpretation of the Wassermann reaction, and flocculation reactions in syphilis are discussed.

**Syphilis of the central nervous system.** In hereditary syphilis, as in syphilis in adults, almost any neurologic condition may be simulated. Thom believes that hereditary syphilis is a most important factor in cases of idiocy and imbecility. Kingery studied the spinal fluid in fifty-two cases of hereditary syphilis, 28.8 per cent presented abnormal findings. There were four juvenile paretics and two mentally deficient cases in the series. Hutinel and Merklen remark the frequent association of tuberculosis meningitis and hereditary syphilis. Rosenbeck states that the average age of onset of juvenile tabes is 15 years—a period equal to that between the primary lesion and tabetic manifestations in the adult. The prognosis in juvenile tabes is good for life and bad for vision. Toni Schmidt Krapelin has contributed an important article on juvenile paresis.

**Syphilis of the eyes.** Green's study of one hundred cases shows that fifty-two presented eye ground lesions, the most characteristic type being peripheral and central punctate pigmentation. Papillary haze of the optic nerve head was quite common. Occasionally the intra-ocular lesion may be the only manifestation of the hereditary syphilis. Zimmermann gives incidence of interstitial keratitis in late hereditary syphilis.

**Syphilis of the auditory system.** In eight of eleven congenital cases of deaf-mutes the Wassermann test was found positive by Ardenne. Hennebert reports three cases of deafness due to hereditary syphilis.

**Teeth.** The permanence and importance of the dental signs of hereditary syphilis cannot be overestimated.

**Hair.** Sabourand states that the pro-



portion of patients suffering from alopecia areata who have inherited syphilis is too large for a casual coincidence, the cure of alopecia areata in children under treatment for syphilis corroborates the relation between them.

**Circulatory system.** There has been a marked increase in the contributions to this phase of hereditary syphilis. Hahn, Solkind, Calvin, Queyrat and Mouquin have contributed to the literature.

**Kidneys.** Queslier reports finding in the literature 101 cases of nephritis caused by hereditary syphilis. Seventy-three of these were less than two years of age.

**Bones.** Gaenslen and Thalhimer report a case of epiphysitis in an adolescent boy, contrary to the commonly accepted theory that this condition occurs only in the early months of infancy.

**Lymph nodes.** Fabris examined 2,605 infants for enlargement of the epitrochlear glands. In children who presented signs of inherited syphilis, enlargement was evident in 32 per cent of those under 1 year, and in 33 per cent of those up to 2 years of age.

**Dystrophies and congenital malformations.** There are three varieties of dystrophies of importance in connection with hereditary syphilis; (1) the partial, local infections—due directly to the lesions of the disease itself, for example, bone lesions; (2) general dystrophies, attributable to impaired function of the organs affected — particularly the endocrine glands; (3) hereditary dystrophies due to transmission from parents to children of "organic debilities"—for instance hyper and hypo-thyroidism. (Park J. White, *American Journal of Diseases of Children*, May, 1922.) (To be continued.)

**The Record of a Brief Experience With the Sachs-Georgi Test.** With an Historical account of the development of flocculation tests for syphilis. (From the Lister Institute, London.) Parthasarathy and Barratt give methods employed and results obtained in a series comprising 265 serums forwarded to the Institute during the period July to October, 1921. From their experience they believe that the

flocculation test may prove to fit the clinical facts even better than the Wassermann.

Ledingham gives a sketch of the development of flocculation tests for syphilis which is concerned solely with methods based on the mutual inter-action of organic colloids, and takes no account of the various and on the whole, unsatisfactory tests which involve merely the precipitation of serum globulins by electrolytes. (Bibliography). (P. Parthasarathy, Mary M. Barratt, and J. C. G. Ledingham, *British Medical Journal*, April 15, 1922.)

### **Dold's Reaction in Diagnosis of Syphilis.**

A cholesterinized antigen is used prepared according to the method of Sachs. It is mixed slowly in an Erlenmeyer flask with physiologic sodium chlorid solution in the proportion of 1:10, the result being a fluid slightly opalescent. The blood serum to be used should be clear, although if it is only slightly cloudy the reaction is not affected. The blood serum is inactivated for one-half hour at 55C; then 0.4 c.c. is added to 2 c.c. of the antigen and salt solution mixture. For control 0.4 c.c. of the serum is added to 2 c.c. of physiologic sodium solution. If the amount of serum available is slight, the proportions of the various agents may be reduced. Every step of the procedure is controlled by positive and negative blood serums. If the reaction is positive, the mixture of antigen and serum becomes cloudy, the degree of cloudiness determining the positiveness of the reaction, as in the case of the Wassermann reaction. Within an hour the various mixtures of known positive and negative serums and the controls are compared with the serum being tested. If the latter remains clear, it is negative; if it becomes cloudy, it is positive for syphilis. Dold asserts that 93 per cent of a large number (600) of serums tested by the Wassermann and Sachs-Georgi tests agreed with his test. The advantages of his test are that no special apparatus is required, and the result can be determined microscopically in from one to four hours,

thus making it available for the general practitioner. (Journal A. M. A., May 20, 1922.)

**The Wassermann Test Performed with Chancre Fluid as an Aid to the Early Diagnosis of Syphilis.** From the Dermatological Research Institute. Klauder and Holmer performed the Wassermann test with fluid obtained from the surface of the chancre. A positive reaction was obtained in the cases of twelve of the fourteen patients examined, from chancre which were treated locally as well as from those untreated. Local treatment apparently did not inhibit the local formation of the Wassermann fixing substances, though treatment caused the disappearance of spirochetes from the surface of the chancre and hence make the dark field examination negative. It is important to note that a positive Wasserman with chancre fluid is obtainable before the reaction appears in the blood. (Joseph V. Klauder and John A. Kolmer, Archives of Dermatology and Syphilology, May, 1922.)

**Nonspecific Cross-Fixation of Complement with Wassermann and Tuberculosis Antigens.** A preliminary report. From the Public Health Laboratory, Department of Preventive Medicine, University of Missouri. Delaney concludes:

Eight of the 100 sera from known tuberculosis patients, who gave neither history nor clinical evidence of syphilis, yielded positive Wassermans with cholesterinized antigen.

Of the 500 sera received for routine Wassermann test, 23 sera giving positive Wassermans also gave fixations with tuberculosis complement fixations.

Our results tend to show that a positive tuberculosis complement fixation in the great majority of cases indicates an active tuberculosis.

The sera from known tuberculous cases, giving positive Wassermans, without history or clinical evidence of syphilis, are regarded as cases of nonspecific cross-fixation. (Anna Dean Dulaney, American Review of Tuberculosis, May, 1922.)

**Value Tests With Commercial Luetin.** Alderson reviews the literature, which shows that leutin has been generally accepted by the authorities as a useful auxiliary in the diagnosis of late, congenital and latent syphilis when thyroid extract, iodids, bromids or nitrates have not been taken. Pusey is quoted: "It is only useful when one is using a supply of leutin which has been tried out and is of known reliability. As furnished commercially now with only sufficient suspension in a single supply for one or two tests, it is, I believe, unreliable." The truth of which seems to have been corroborated by this investigation. Author concludes: "There were so many leutin failures in our series of selected cases that were clinically and serologically positive that we fear that luetin purchased in the open market here (San Francisco) may be inert. It is hoped that this question will be investigated in other sections of the country.

Investigations carried on with the financial assistance of the Inter-Departmental Social Hygiene Board. (Harry E. Alderson, Archives of Dermatology and Syphilology, May, 1922.)

**Diagnosis of Late Hereditary Syphilis and Lupus in Otorhinolaryngology.** Portmann distinguishes between hereditary syphilis and tuberculosis of a lupic form, of the nose, larynx, the pharynx, and the external and internal sides of the cheek. Diagnosis is difficult because of close resemblance of symptoms of the two diseases, and yet diagnosis is of course necessary before treatment is begun. Author discusses clinical diagnosis, and microscopic features of tuberculosis. (George Portmann, New York Medical Journal and Medical Record, May 3, 1922.)

**The Dangers and Limitations of Salvarsan.** A debate on this subject which took place at the Berlin Medical Society on January 25, is reported in Deutsche medizinische Wochenschrift for February 16th.

One of the speakers, Arndt, admitted that although every precaution had been taken, there had been several waves of fa-



talities. He himself had observed only four deaths between 1914 and 1918; in 1919 he had seen none, and in 1920 he had again seen none, although he had given 24,000 injections in that year. But in 1921, he had eight deaths in 14,000 injections.

With regard to the frequent occurrence of acute or subacute yellow atrophy of the liver, he said that most of the patients were over 40, and that salvarsan jaundice was most common in connection with tertiary syphilis. Owing to salvarsan fatalities the dosage had been reduced, and the exhibition of the drug had been limited in the main to primary and secondary syphilis; these two precautions had practically eliminated salvarsan jaundice.

Recent improvements in the manufacture and control of salvarsan were discussed by Kolle of Frankfurt.

Both of these speakers emphasized the value of salvarsan early in syphilis and its comparative futility late in the disease. (British Medical Journal, April 1, 1922.)

**The Effect of Serial Administration of Silver Arsphenamine on the Kidney.** From the Department of Dermatology and Physiological Chemistry, Jefferson Medical College. Sidlick and Mallas conclude: Silver arsphenamine when given intravenously does not cause functional disturbance of the kidney. (D. M. Sidlick and M. L. Mallas, New York Medical Journal and Medical Record, May 3, 1922.)

**The Effect of Mercury in Syphilis.** Heller brings forward statistical evidence against the recent views: (1) That mercury is only a symptomatic remedy and does not influence the course of syphilis and at the best leads to a symptomatic cure, whilst salvarsan alone can produce a true cure; (2) that all cures of syphilis before the salvarsan period are instances of spontaneous recovery. The statistics of Gluck in Bosnia show the high percentage of tertiary syphilitic cases in some districts and their great reduction under the influence of mercury given in the early stages of syphilis.

Heller concludes that mercury is not only a symptomatic remedy, but that it favorably influences the course of syphilis. So long as it has not yet been proved that salvarsan or other remedies do the same or more (and this can only be proved by pathological anatomy in the next twenty years), the medical man is not justified in discontinuing the use of mercury. (Heller, *Klinische Wochenschrift*, March 11, 1922; *British Medical Journal*, May 13, 1922.)

**Nucleinic Acid for Tabes and G. P. I.** Prof. Oskar Fischer, of the German University in Prague, has announced at a session of the Prague Medical Society the results of his experiments on the effects of his new preparation against general paralysis of the insane and tabes, which he calls Phlgethan. The preparation has been examined and treated by Prof. A. Wiechowsky for its pharmacological qualities before it was tried on actual cases of human cerebral syphilis. The preparation contains nucleinic acid, which has long been used for the treatment of this condition. (*Lancet*, May 13, 1922.)

**Arsenical Treatment of General Paralysis.** Aubry and Trampol report 27 cases of general paralysis treated with intramuscular injections of novarsenobenzol, starting with 0.15 gram up to 1.05 gram at intervals of four days; and afterwards every eight days—the total amount given being 7 to 8 grams. The results were: 13 failures, 7 remissions with progressive symptoms later, and 7 marked remissions lasting for a considerable period—in one case nearly four years and in another two years. The improvement, when it occurred, was chiefly noticeable in the mental condition. No bad results were recorded. Even allowing for mistaken diagnosis and the spontaneous remissions which sometimes occur in general paralysis without treatment, the authors consider novarsenobenzol injections of much benefit in some cases. Other physicians have recorded similar results from this treatment. (Aubry and Trampol, *Rev. Med. de l'Est*,

March 1, 1922; British Medical Journal, May 13, 1922.)

**Radiotherapy in Interstitial Keratitis.** Bussy and Japiot relate their experience with very small doses of x-rays in the treatment of interstitial keratitis. "To be efficacious the treatment must be begun during the period of infiltration, before cicatricial changes have been caused. The younger the patient, and the more the disease is of the inflammatory type, the more favorable are the results. The hereditary syphilitic forms are the most amenable to the treatment." The method employed by the authors is to depend on what they themselves describe as homeopathic doses.

The authors apply to the closed eye, without special localisation or protection, very small doses of penetrating rays during five sances of five minutes each, the sances being separated by a week. The method should be used in conjunction with the ordinary methods, not as a substitute for these. (Abstrt. by Ernest Thompson: L. Bussy and P. Japiot, Lyon, La Clin. Opthal., February, 1921; British Journal of Ophthalmology, May, 1922.)

**Syphilis in Children.** (Read at a meeting at the Melbourne Medical Society.) Graham describes the technique employed by resident medical officers when administering nov-arseno-billon, together with the results in a series of the injections and the Wassermann findings that are available, and in addition, a brief analysis of some family histories. 76 cases were investigated. Author concludes that deep cutaneous injection of nov-arseno-billon is regarded as a simple method of treatment applicable for all syphilitic children. The serious sequelae are the abscesses. The general health of children and active lesions have been beneficially affected by this method of using nov-arseno-billon. Percutaneous intravenous injections are preferable in selected cases. (References). (H. Boyd Graham, Medical Journal of Australia, March 11, 1922.)

**Autoserotherapy in Gonococcus Infection.** Schachmann reports very favorable

impressions from subcutaneous reinjection of 1.5 c. c. of the patient's own blood serum in fifteen cases of acute gonorrhea and in five cases of gonococcus ophthalmia neonatorum. The ophthalmia subsided remarkably promptly. (Schachmann, Bulletin de l'Academie de Medecine, Paris, March 21, 1922; Journal A. M. A., May 27, 1922.)

**The Treatment of Gonorrheal Epididymitis.** Ravich recommends the intravenous use of sodium iodide. (Abraham Ravich, New York Medical Journal and Medical Record, May 3, 1922.)

**Some Observations on Gonorrhea in the Navy (British), with an Analysis of One Thousand Consecutive Cases Treated on Orthodox Lines.** Rivaz and Hitch give tests of cure carried out in the cases under consideration, treatment of acute and chronic cases and notes on the preparation of gonococcal vaccine used. Four statistical tables are presented showing progress and results. (P. M. Rivaz and F. G. Hitch, Journal of the Royal Naval Medical Service, April, 1922.)

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### Radium Emanations in Exophthalmic Goiter—Blood Vessels of Adenomas of Thyroid.

Radium emanations have been used by Wallace I. Terry, San Francisco (Journal A. M. A., July 1, 1922), and his associates in thirty-three cases of exophthalmic goiter. Only patients suffering from an extreme degree of hyperthyroidism, due to hyperplasia of the thyroid—the true exophthalmic goiters, have been subjected to this form of treatment, and only with the idea of converting them into better risks for major surgical procedures. Final results have been obtained in sixteen of the thirty-three cases in which radium emanations were received. Fourteen patients had resections of the thyroid after intervals varying from thirty-two to 114 days after radium. One patient died two days after a bilateral resection from acute hy-



perthyroidism. Another patient died nine months after resection of both lobes from recurring hyperplasia of the thyroid (substernal) and marked hyperplasia of the thymus and a terminal pneumonia. A third patient died three months after radium, from cirrhosis of the liver. A fourth patient died fifteen days after bilateral resection of the thyroid, from acute yellow atrophy of the liver. Ten patients are definitely cured after resection. Of these, one had diabetes mellitus, which has apparently disappeared since resection. Another had profound toxemia with jaundice at the time of entrance. In two cases there has been an apparent cure by radium alone. The amount of emanation and the number of tubes Terry says should vary according to the size of the goiter and the intensity of the symptoms—from 4 to 10 millicuries, contained in from six to eight tubes. The emanations are of value in preparing bad risk cases of exophthalmic goiter for further surgical treatment. The emanations should not be used in adenomatous goiters.

### HAY FEVER.

The desensitization treatment of hay fever patients is now in full swing, for the annual August datings have not been canceled. However, there are procrastinators and unbelievers in this domain of experiment, as in all others. There will be plenty of hay fever this year, notwithstanding the endorsement of the pollen extract desensitization treatment (prophylactic) by Dr. Scheppegredd, president of the American Association for the Prevention of Hay Fever (who has just written a book on the subject), and others. These patients are not altogether at the mercy of the ragweed, however, for it is possible to mitigate their condition by the application of ointments, inhalants or sprays.

The nasal mucosa is disorganized, relaxed, weeping, as a result of the pollen bombardment. It can be toned up to a material degree of resistance and independence by the use of Adrenalin (P. D. & Co.) in spray, inhalant or ointment form.

When a comparatively weak solution is used in spraying, no reaction follows, and the applications may be repeated as often as desired without risk of toxic effect. Ointments and inhalants of Adrenalin are rather more convenient to use than the spray, though not so prompt in their effect. They contain Adrenalin 1:1000, and it is the gradual release of the adrenalin that prevents a too pronounced astringent effect when they are applied.

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**Smallpox.** The Department of Commerce, through the Bureau of the Census, announces that there have been very few deaths from smallpox in recent years. Since the beginning of annual compilations in 1900 the highest rate from this cause in the death registration area of the United States was 6.6 per 100,000 population in 1902, while in 1903 it was 4.2, and in 1904, 2.1, since which time the rate for the registration area has never reached 1 per 100,000 population. Much higher rates in certain states and cities, however, clearly show that the danger of smallpox in an unvaccinated population must not be lost sight of. The high rate (9.2) in 1920 in Louisiana should serve as a warning.

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During June the following articles have been accepted by the Council On Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

Parke, Davis & Co.: Diphtheria Antitoxin piston syringe containers, Antitetanic Serum piston syringe containers, Antigonococcic Serum 12Cc. bulbs, Antistreptococcic Serum 20 Cc. piston syringe container, Antistreptococcic Serum 50Cc. piston syringe container, Anti-Anthrax Serum, Antimeningococcic Serum, Diphtheria Toxin-Antitoxin Mixture, Tuberculin B. F. (Bovine), Gonococcus Vaccine 1 Cc. bulbs, Gonococcus Vaccine 1 Cc. syringe, Gonococcus Vaccine 5 Cc. bulb, Gonococcus Vaccine 20 Cc. bulb, Erysipelas and Prodigiosus Toxins (Coley) 1 Cc. bulb, Erysipelas and Prodigiosus Toxins (Coley) 15 Cc. bulb.

## BOOKS REVIEWED.

**New and Non-official Remedies, 1922.** containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1922. Cloth. Price, postpaid, \$1.50. Pp. 417—XXXIV. Chicago: American Medical Association, 1922.

New and Non-official Remedies is a publication of the Council on Pharmacy and Chemistry through which this body annually presents the American medical profession with disinterested, critical information about the proprietary medicines which are offered to the profession, and which the Council deemed worthy of recognition. In addition to the descriptions of proprietary preparation, the book contains descriptions of those non-official remedies which the Council deemed deserving of consideration by the profession.

To be admitted to New and Non-official Remedies it is required that the quantitative composition of the article be declared, that the therapeutic claims made in marketing the article must be truthful and that the preparation has, or gives promise of having, therapeutic value.

The descriptions of articles are based in part on investigations made by or under the direction of the Council and in part on information submitted by the manufacturer or his agent. However, statements made by those interested in the manufacture or marketing of an article are accepted only if they are supported by substantiating evidence or conform to generally accepted facts. Physicians, therefore, may use the book as a guide in determining whether or not a given proprietary preparation is indicated in the treatment of their patients. The interests of the patients and of the physicians themselves will be safeguarded by following the suggestions made in The Journal of the American Medical Association ("Helping the

Council;" J. A. M. A., Nov. 6, 1920, p. 1275) and by giving no consideration to any proprietary medicinal agent which has not been admitted to New and Non-official Remedies.

A valuable feature of the book is the grouping of preparations in classes. Each of these is introduced by a general discussion of the group. Thus the silver preparations, the iodine preparations, the arsenic preparations, the animal organ preparations, the biological products, etc., each is preceded by a general, thoroughly up-to-date discussion of the particular group. These general articles compare the value of the products included in the group with similar pharmacopeial and other established drugs which it is proposed that these proprietary preparations shall supplant.

A glance at the preface of this volume shows that the book has been extensively revised. In fact, each edition of New and Non-official Remedies is essentially a newly written book, brought up to date by those who speak with authority on the various phases of therapeutics.

Physicians who wish to know why a given proprietary is not described in New and Non-official Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book) are given references to published articles dealing with preparations which have not been accepted. These include references to the Reports of the Council, to Reports of the A. M. A. Chemical Laboratory and to articles which have appeared in The Journal of the American Medical Association.

New and Non-official Remedies should be in the hands of all physicians who prescribe drugs. The book contains information about the newer materia medica which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn street, Chicago, on receipt of one dollar and fifty cents.



## BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

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**The Surgical Clinics of North America.** (Chicago Number, June, 1922).—The Surgical Clinics of North America (issued serially, one number every other month).—Volume II, Number III (Chicago Number, June, 1922), 289 pages, with 89 illustrations. Per clinic year (February, 1922 to December, 1922). Paper, \$12.00 net; cloth, \$16.00, net. Philadelphia and London: W. B. Saunders Company.

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**THE SURGICAL CLINICS OF NORTH AMERICA**

(San Francisco Number.)

The Surgical Clinics of North America (issued serially, one number every other month). Volume 11 Number 11 (San Francisco Number), 259 pages, with 112 illustrations. Per clinic year (February, 1922, to December, 1922). Paper, \$12.00 net; cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

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"Symptoms of Visceral Disease," F. M. Pottenger, A. M., M. D., LL.D., F. A. C. P., author of "Clinical Tuberculosis" and "Tuberculin in Diagnosis and Treatment," "Muscular Spasm and Degeneration." Second edition, 86 text illustrations and 10 colored plates. Cloth, \$5.50. C. V. Mosby Co., St. Louis, Mo.

"Applied Chemistry," an elementary text book for secondary schools, by F. M. Peters, Ph.D., instructor in Chemistry in Central High School, Kansas City, Mo., for twenty years, more recently vice principal. Author of "Chemistry for Nurses." Cloth, \$3.50. C. V. Mosby Company, St. Louis, Mo.

## DEATHS

Dr. D. A. Haney, of Newnan, Ga., died July 25th of acute attack of Bright's disease.

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Dr. A. M. Anderson, of Atlanta, died August 9th, 1922, suddenly from acute cardiac failure.

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**FOR SALE**—Mrs. D. A. Henry, Newnan, Ga., the wife of the late Dr. D. A. Henry, of Newnan, Ga., offers the following for sale: Complete equipment for ear, eye, nose and throat work, such as adenoid and tonsil instruments, ophthalmoscope, ophthalmometer, treatment chair, operating tables and cabinets, Thompson Plastic X-ray outfit complete, gas tubes, atomizers and cautery; complete eye-testing outfit; obstetrical instruments and other surgical supplies; reception room furniture and handsome ground floor office in Newnan, Ga. Address Mrs. D. A. Henry, Newnan, Ga.

## PROGRESS IN THE HANDLING OF CHRONIC PEPTIC ULCER.

Duodenal ulcer is treated satisfactorily by surgery according to William J. Mayo, Rochester, Minn. (Journal A. M. A., July 1, 1922), in approximately 95 per cent of cases, although in 1 or 2 per cent of these a second operation may be required. The ulcer is not associated with cancer liability. The average operative mortality in cases of duodenal ulcer, including the acute and chronic cases, is under 2 per cent from all causes; and, as the part of vestibule of the small intestine, permanent interference with function is slight. In cases of gastric ulcer, satisfactory results are obtained by one operation in more than 85 per cent. In the remaining cases, a secondary operation, preferably resection, which eliminates, to a great extent, future ulcer possibilities, brings the surgically satisfactory group of gastric ulcers well above 90 per cent, but there is a definite cancer liability in the years to follow. The average mortality in the operative treatment of cases of gastric ulcer, including the acute and chronic cases, is about 3.5 per cent. The stomach has important functions to perform and a certain amount of permanent crippling may result. In about 50 per cent of the patients who fail to obtain satisfactory relief, the difficulty is functional and can be relieved by medical management. The other 50 per cent must be classified as surgical failures due to faulty mechanics, and will require secondary corrective surgical procedures for relief. The patients' general condition must be considered and rational habits of living established. The elimination of all sources of focal infection is also an essential measure.

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## RELATIVE VALUE OF SURGICAL AND MEDICAL TREATMENT OF GASTRIC AND DUODENAL ULCER.

The question of the medical and surgical treatment of ulcer is analyzed by Arthur Dean Bevan, Chicago (Journal A. M. A., July, 1922), in this way: Almost all ulcers in their early history should be treated medically. When they persist under good medical management, when they recur in spite of good medical management and the care which the patient can obtain in his or her peculiar station of life, when serious and repeated hemorrhages occur, when pyloric obstruction does not yield to good medical management, when there is a reasonable suspicion of malignancy, in all of these cases medical management should not be too long persisted in but should give way to exploration and surgical therapy as the safer plan and the plan which affords the better prospect of cure. The cases demanding surgical treatment for their best interests would constitute about 10 per cent of the ulcers of the chronic type.

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No. 9

### THE USE OF THE OPHTHALMOSCOPE IN GENERAL DIAGNOSIS.\*

W. C. Lyle, M. D., F. A. C. S.

Atlanta, Ga.

In Von Helmholtz's original description of the ophthalmoscope published in 1851 he predicted that by its aid practically everything which his contemporaries were accustomed to observe by dissection of the dead eye could, by the use of his instrument, be recognized in the living eye. More than that, he demonstrated that the instrument provided a means by which one could determine objectively the optical state of the eye itself—that is, refraction. Fifty years later Samuel Theobald put the question: "What has the ophthalmoscope done for ophthalmology?" and answered it by asserting that, "It has done all that Helmholtz promised it would do. His prediction was that it would show alterations in the retina, just as the unaided eye sees them in the cornea and iris; that it would enable us to detect congestion of the retinal vessels and inflammatory exudations upon or in the retina, or between it and the choroid, that it would permit us to recognize more easily and certainly the presence and degree of opacities of the crystalline lens; that by its aid we should be able to detect the existence, and measure the amount of shortsightedness and farsightedness. A more striking example of prevision than is afforded by these prophetic assertions of Helmholtz it would be difficult to find."

Only a few years were to elapse before the medical profession at large recognized the value of Von Helmholtz's discovery in the diagnosis of many conditions hitherto regarded as wholly unrelated to the eye. In

1871 Clifford Allbutt published his treatise on the use of the instrument in the diagnosis of affections of the nervous systems and of the kidneys, and shortly after appeared Gowers' Manual of Medical Ophthalmoscopy which has since gone through many editions.

It is, therefore, somewhat surprising to observe that despite the fact that the invaluable diagnostic aid afforded by the ophthalmoscope has been recognized for half a century, its use in general diagnosis is by no means as frequent or as extended as its value indicates. And this is the more astonishing when we consider that the use of electricity has so greatly simplified its application, that it can now be used with a facility which exceeds even the prescience of Von Helmholtz.

In no other part of the body are we offered an equal opportunity for observation of the blood vessels, as—by the aid of the ophthalmoscope—we have in the tissues of the retina. The condition of the blood vessels located there is indicative of the condition of the general vascular system, and the changes which we behold there give us a guide by which we may estimate similar changes going on in other parts of the body. Thus, if such degenerative changes as take place in arteriosclerosis are in process in the organism, they can be detected in the eye long before we are able to observe them anywhere else. The retinitis of albuminuria or diabetes very frequently is the first indication which will suggest a correct diagnosis. A syphilitic fundus-picture has more than once given the lie to a persistently negative blood Wassermann, and the alterations of the eye-grounds which are brought about by tuberculosis may often clinch a diagnosis, when all other physical signs are so con-

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



flicking or obscure as to render a correct decision well-nigh impossible.

The ophthalmoscope should form part of the equipment of every practitioner who is called upon for diagnosis—and who is not?—and still more important, every practitioner should know how to use it. In order to detect abnormalities, one should be thoroughly familiar with the appearance of the normal eye. On first looking into the eye we should note the color of the eye-ground. This differs widely in normal individuals, according to whether they are brunettes or blondes, due to the variations in the amount of pigment present in the retinal layer, or pigment epithelium. In the choroidal layer this pigment shows as dark spaces between the choroidal vessels, and in the region of the macula or “yellow spot”—where vision is most acute—the pigment color grows darker and sometimes shows as a small spot in the center. About the insertion of the optic nerve the pigment may also be seen, forming what is known as the choroidal ring, occurring in dark masses irregularly arranged, but never completely encircling the nerve. The nerve at its insertion appears semi-transparent, and is of a grayish color except in the center, where the concentration of the central nerve fibres makes it appear almost white. When the center is very large and deep, the lamina cribrosa appears like a white network across the nerve entrance. Normally the surface of the nerve entrance—the papilla—does not extend beyond the plane of the retina; indeed, in the healthy subject, only a most skillful and experienced observer will be able to see the retina at all.

The appearance of the eye-ground has often been compared to a mosaic made up of light and dark spots, commonly referred to as stippling. This stippling is an important indication worthy of careful study, for by its presence or absence the condition of the retina can be ascertained. The slightest blurring of this delicate network of pigments gives evidence of some pathological condition, either of the eye itself or some of the parts behind it.

The eye-ground arteries are branches of the central retinal artery, passing out from the nerve and dividing into smaller arteries, which in turn extend outward over the entire field of the retina. The veins conform to a similar arrangement, emptying into the central retinal vein. It is easy to differentiate the arteries, as they are of a paler color, with a white line running along the center of each vessel; the veins are much darker and the line in their center less noticeable. The course of all the blood vessels is practically straight, curving very slightly as they radiate to the periphery, so it is an easy matter to follow them. If their course is irregular, or the outlines are blurred, it is an evidence of some retinal change. The statement that the normal proportion in size between arteries and veins is as two to three, is particularly true of the vessels in the retina, but it is not true of the vessels on the disc, which may appear to grow narrow or restricted, and quite frequently a vein on the disc may look abnormally large. However, any great increase or diminution in the size or breadth of a vessel, or part of a vessel, in the eye-ground, aside from the disc, is indicative of disease; for instance, arteries and veins may both be increased in diameter, or the arteries may remain normal and the veins diminish, or—and this happens more frequently—the width of the veins may increase. Changes in the retinal vessels are not always easily detected unless the condition is well marked or carefully looked for, simply because there are normally many differences, so it is a very good plan to compare the size of the vessels in the two eyes, as this will show whether the manifestation is due to local causes, or indicative of a general systemic condition. (Hartridge)

Veins increased in diameter (beyond the normal size) are seen in the retinitis of syphilitic or splenic origin, as well as other varieties of retinal inflammation; they are also in evidence in the early stages of fevers such as typhoid; in pleurisy, pneumonia, and asthma; and in congestion of the brain or in meningitis; likewise in

some heart affections, and in anemia. Any impediment to the return blood stream from the eye will naturally cause the veins to become distended; goitre and various growths in the neck will have this influence; also lung affections, especially tuberculosis. (Thorington)

Arteriosclerosis is indicated by numerous changes which may be observed in the fundus. Fine tortuous vessels may be seen near the macula, or close to the disc; beside these small twigs, the larger retinal arteries and veins will also be tortuous, showing white streaks along their sides, or an enlargement of the reflex light-streak through their centers. Often a vein will be noted which is being pressed upon by a hard-walled artery at their point of juncture, so greatly as to indent the vein, and frequently the veins will be dilated beyond the point where an artery crosses. Sometimes the arteries may seem to be transformed into white lines, or an artery may be white for part of its length and red in other parts. White spots—which are hemorrhages and exudates—may also be observed. There will be a loss of transparency of the vessel walls, and hyperemia of the nerve-head. Both arteriosclerosis and nephritis may show these changes, and it is easy to see how the early use of the ophthalmoscope may reveal the first symptoms of these serious systemic diseases, and by permitting prompt treatment, greatly increase the patient's chances of life. (Jean)

Hemorrhages into the retina, when caused by arteriosclerosis, are of great prognostic significance; they are followed by cerebral apoplexy in over half the cases observed. Thrombosis of the central retinal vein, or of its branches, has a like significance.

Hemorrhages into the retina without accompanying inflammation may be called retinal apoplexy. Retinal apoplexy or any hemorrhage will usually set up inflammation, so that we are accustomed to term it hemorrhagic retinitis. The ophthalmoscope will reveal a cloudy retina with a swollen disc, the edges of which are ob-

scured. The arteries are small and the veins hard and tortuous. Syphilis is the most common cause of this condition, but it may also be due to heart or blood-vessel lesions, and is at times attributed to abnormal suppression of the menses.

Syphilis is a very frequent cause of chorio-retinal injuries. Many of the degenerative changes which are characteristic of arteriosclerosis result from syphilitic infection, beside which it has also its peculiar manifestations, such as alterations in the pigment epithelium, when the ophthalmoscope will show a clumping of the black pigment, with white patches; the pigment spots assuming various shapes, sometimes being web-like, round or irregular; or again, having the appearance of delicate mantles enveloping the smaller retinal vessels, or taking the form of white patches surrounded by black bands. The finding of dense black spots in the most anterior area of the retina is a strong indication of hereditary syphilis. Sometimes a syphilitic infection will give rise to atrophic patches upon the choroid and retina. These patches are usually round or irregular, white in color and surrounded by a black ring. The blood vessels within them may be partly or entirely obliterated. If the pigment of the choroid has been displaced, the sclera will have a bluish-white cast.

There is, perhaps, no single variety of retinitis which can be designated as typical of syphilis. The disease may affect either the superficial or the deep layers; it may be closely circumscribed; or there may be a concurrent choroiditis. Hemorrhages are not an invariable accompaniment, although profuse ones often occur. The diffuse type of syphilitic retinitis will appear as a general cloudiness of the retina, occasionally marked by deeper gray patches. As the inflammation subsides, alterations in the pigment epithelium will take place, so that the pigment will be displaced in the retina.

The white patches revealed by the ophthalmoscope in retinitis arise from a variety of causes, perhaps the most charac-



teristic being those found in albuminuric retinitis where they often occur in a circular form, radiating from the macula like the spokes of a wheel, the whole forming a circle much larger than the disc, and having a white, lustrous appearance. In these cases numerous retinal hemorrhages are likely to occur, and the condition is often accompanied by inflammation of the papilla. Looking through the ophthalmoscope we will not be able to see the edge of the disc clearly; the veins will appear dark, tortuous and dilated; the course of the arteries, partly obscured by the swollen retina, cannot be traced to the periphery, and they have the appearance of being covered by a white, cloud-like mass, which comes from the intense exudation and edema. Hemorrhages—represented by dark, irregular spots of varying size—are scattered over the field of the retina, and fatty degeneration will be demonstrated by a peculiar stellate appearance in the neighborhood of the macula. There may be rows of tiny spots which radiate from the center of the macular area, and if these are present they can be taken as a positive symptom of kidney disease. Their absence, however, does not necessarily rule out the diagnosis of a renal lesion.

If the ophthalmoscope is employed early enough, when we see only a slight congestion and tortuosity of the vessels, with blurring at the edges of the disc and of the retina itself, associated with diminished vision, the diagnosis of kidney disease may be reached in time to make the condition amenable to treatment; for these changes are often in evidence before urinalysis would reveal the true state of affairs.

While the changes in the eye-grounds occurring in diabetes are not unlike those characterizing albuminuria, they are commonly confined to the posterior pole of the eye, and will be observed as round spots—white or yellowish—usually clustered about the macula, but not making the stellate figure which has been described. If hemorrhages are present they are usually small, and show as dark spots among the white patches. The inestimable value of

the ophthalmoscope in the early detection of pathologic kidney conditions needs no further emphasis here.

Many cases of tuberculous meningitis present optic neuritis, but it cannot be recognized as of tubercular origin, unless accompanied by other clinical evidences of the disease. Tubercular lesions may be differentiated from those of syphilis by the fact that they commonly occur in the posterior area of the eye-ground, while those of syphilis are usually in the anterior portion. If the lesions have taken place recently they will appear as raised spots, of a grayish shade, which are caused by the presence of tubercles in the choroid, lying beneath the edematous retina. If the injury occurred some time before examination, we will see irregular scars generally with a certain amount of pigment enclosed in them or gathered about them in a circle. Sometimes several of these spots will become confluent, forming a mass as large, or even larger, than the disc. Tuberculosis of the choroid probably exists much more frequently than the reported instances would lead us to suppose, and a more general use of the ophthalmoscope in connection with the obscure forms in which tuberculosis so often presents itself, would be certain to give great aid in early diagnosis.

In papillitis or "choked disc" the ophthalmoscopic examination will show that the normal characteristics of the disc have almost wholly disappeared. The nerve fibres will be so swollen as to have the appearance of standing out from the vitreous body, parts of the blood vessels being almost obscured; while the retina will look practically the same as usual. In severe cases, however, there may be extensive hemorrhages throughout the entire field of the retina. There is a sharp bending of the vessels at the edge of the swollen disc as they descend to the retina. The disc is raised and widened. The veins are swollen and the vessels often covered over by the swollen nerve fibres, which may look like radiating streaks. All the changes are confined to the disc or near it. The center

of the choked disc is found by following two retinal vessels until they unite (Jean). This condition is one of the important signs of a brain tumor or abscess, a sinus thrombosis, or—especially in children—tuberculous meningitis. The recent attention which has been given to the study of the endocrines and their relation to various systemic states has emphasized the importance of papillitis as a diagnostic indication. The ophthalmoscope has often been the sole instrument of diagnosis in obscure cases of endocrine imbalance.

In so brief a paper as this, it has been possible merely to mention some of the conditions where Von Helmholtz's device would lend aid in diagnosis. It does not seem too dogmatic to say that no physical examination which makes any pretensions to thoroughness should be considered complete unless it includes a careful examination of the eye-grounds, and this becomes doubly imperative, if there is any reason to believe we are dealing with vascular changes due to generalized degeneration.

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Suite 410, Candler Building,

## DISCUSSION.

Dr. George L. Echols, Milledgeville:

Dr. Lyle's paper strikes me as being a very timely contribution. In examining our patients we should not examine for one thing alone, and should not study one condition alone, but study the patient as a whole. Dr. Lyle has called our attention to the number of different conditions in which the ophthalmoscope will give us a certain amount of help. The thing to which I wish to call your most especial attention is the fact that when you are using the ophthalmoscope you are looking directly at the only exposed brain tissue which can be seen prior to autopsy. That is one of the main ideas, as I see it. No neurological examination is complete without the use of the ophthalmoscope.

There is another thing that impresses me in Dr. Lyle's paper, and that is what he has to say about neurosyphilis. In Milledgeville we have a large number of neurological conditions, but of the treatable neurological conditions, neurosyphilis predominates by far. In the interesting things that have been brought out I think the ophthalmoscope plays a large part, and I wish to repeat that I do not think a neurological examination is complete without its use.

Dr. M. S. Equen, Atlanta:

Dr. Lyle has referred to quite a variety of cases. I think that we have almost every case he mentioned at the Soldiers' Home, for we have almost everything in the way of eye lesions. If any of you gentlemen get an ophthalmoscope and come to Atlanta, we shall be glad to show you those cases.

Dr. Lyle (demonstrating ophthalmoscope):

The ophthalmoscope is an instrument that you will eventually be forced to use, but there is no instrument more difficult for the beginner. In beginning the use of the ophthalmoscope the average man immediately tries to see what he is going to see one inch from the eye. By so doing, you are straining the accommodation. Remember that you are looking through the iris just as if you were looking through a window. Try to force yourself to believe that you are going to look at something fifteen or twenty feet away, and by so doing you will relax the accommodation and be able to get a clear and distinct fundus picture. I mention that point because I think it is of more importance than anything else.

## INFLUENZA EPIDEMIC AT CAMP BENNING, GA., FEB.-MARCH, 1922.\*

Alvin J. Bayley,

Major, Medical Corps, U. S. Army.

The epidemic of influenza through which we have just passed made its first appearance in Europe in November and December, there being no unusual prevalence of influenza in the United States at this time. In the latter part of January the disease became epidemic in this country, and a somewhat extensive outbreak occurred in Camp Benning, beginning January 31st.

The experience of Camp Benning with reference to the epidemic is probably identical with that of the rest of the country, and is only of interest in that one group of doctors had the opportunity to observe 6,000 men under all conditions and so were able to see certain phases of the epidemic ordinarily difficult of observation.

The onset of the epidemic was very sudden, 13 cases which were obviously influenza being admitted to hospital on January 31st, the admission rate increasing each day thereafter until February 9th, when 48 cases were reported. The admission rate decreased from this point until February 26th, upon which date no cases were reported. From this date until March 20th, the average daily admission rate was three cases. Six thousand officers and men were in camp during this period and 486 or about one in every twelve had the disease in a severe enough form to be placed upon sick report.

Epidemiologically, certain studies were made. The method of introduction of the disease into camp was looked into and no conclusions were arrived at. At Leavenworth, Kansas, and at Fort Myers, Virginia, the onset occurred at practically the

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same time as at Camp B  nning, Ga., and the greatest number of cases developed between February 9th and 13th at these widely separated places. In camp some organizations had a very high admission rate and others an extremely low rate. This was noticed by both medical and line officers and the cause was obvious. Organizations whose duties necessitated them being out in inclement weather invariably had a high admission rate. Thus the 1st Battalion, 29th Infantry, was used for demonstration purposes and had to function in all sorts of weather. Co. "A" started with an admission rate of 3,800 on January 31st; this increased to 11,000 February 9th, and the company was not free of new cases until February 15th. Co. "M," living under identical conditions, happened to be learning the parts of a machine gun in the company streets during this time. During the showers they entered their tents. Only upon three days, February 6th, 8th, 16th, did they have any influenza at all. The same may be said of the Service Co., 29th Infantry.

Clinically, the disease was of the respiratory type in practically all cases, the attack taking the form of a three or four days' fever with sudden onset, catarrh of the upper respiratory passages and moderate prostration. General muscular pain, sore throat, an irritating and persistent cough with substernal pain were present in most cases. A slight degree of cyanosis, a pulse slow in proportion to fever, and few signs in throat and chest of inflammation were characteristic findings.

Lobar pneumonia occurred in 11 cases, with one death; lobular pneumonia was present in six cases. In view of the fact that the complications of pneumonia may frequently be due to secondary infection with varying organisms, it is wise to separate pneumonia cases in the wards from other cases and from each other to avoid cross infection. To accomplish this purpose, pneumonia cases were placed in cubicles and ward attendants wore masks and disinfected hands between cases.

Ear, nose and throat complications were

common. Otitis media occurred in 25 cases, of which 11 required incision. Sinus inflammation of a very mild degree occurred in 35 cases, and of moderate degree in 17 cases. Laryngitis of a moderate degree was fairly common. Some of these cases had never been on sick report, but had had the disease in mild form, not going to bed.

Persistent tachycardia was observed in three cases, and functional disturbances were noticed, palpitation and angina-like attacks. Febrile albuminuria was found at some time to a slight degree in the greater number of cases, in no case did it persist for any length of time. At the present time an unusually large number of cases are in hospital under observation for tuberculosis, but as to whether the disease flared up because of a previous attack of influenza or not is difficult to say. Cough at times spasmodic in character continued in a great many cases for a considerable period of time.

Complications were probably not seen as frequently by us as by the profession in civilian practice, due to the fact that a man in the army becoming sick with influenza is immediately placed upon sick report, entered in hospital and kept there until he is free from temperature for ten days. Slight exposure during the disease or convalescence was found to cause complications, such as pneumonia, bronchitis, sinusitis, etc., and the importance of prolonged hospitalization became increasingly more apparent as the epidemic progressed.

Prevention of influenza is difficult, but there are certain measures which will undoubtedly lower the incidence and severity of the disease and reduce the number of complications. Fatigue and exposure to inclement weather are the most noteworthy predisposing factors to the disease, and complications can be avoided by going to bed early in the disease and staying there during the febrile period, not leaving the house or the hospital for the ten days following. One of the most important preventive measures was daily inspections by medical and line officers. All men complaining even slightly were hospitalized,

thus isolating them and preventing the spread of the disease in the command. This measure in itself is believed to have been the means of preventing many hundreds of cases of the disease and many of its complications. Additional measures in use were ventilation, sleeping head to foot to avoid droplet infection, etc. All members of the command were warned to take all ordinary precautions against conveying massive infections to others when coughing or sneezing.

Vaccination against pneumonia and the common respiratory infections is voluntary in the army at present. In Camp Benning the number vaccinated was too small to draw any conclusions as to its efficacy in the prevention of influenza and its complications. It was decided to postpone the campaign to vaccinate the entire command until next fall. Pneumonia vaccine confers a higher degree of immunity during the first few months following its administration than at any other time, and so is best given just before the pneumonia seasons. During an epidemic it is difficult to complete the inoculations before everyone is exposed to the infection. Vaccination at this time increases susceptibility to infection temporarily, due to the lowered period of immunity immediately following the inoculation; this constituting the well-known factor of danger when preventive inoculations have to be given in the presence of an epidemic.

Laboratory findings were in close accord with previous reports where the same methods were employed. One hundred cases were selected for intensive study.

White blood counts in uncomplicated cases averaged 8,500, with a considerable number of cases, including some with higher temperature, showing a decided leukopenia. There was no increase in any one of the different cell types. In complicated cases the counts averaged 20,000, with an increase in polynuclear neutrophils. In the earlier days of the epidemic it was noticeable that the white counts averaged lower than was the case later.

A routine blood culture was made in

nutrient broth, but with uniformly negative results, except in three cases of pneumonia where pneumococci were recovered.

Throat cultures were made on fresh blood agar of P. H. 7.6. No chocolate agar was used, though it was realized that without it there was little chance of recovering the influenza bacillus. It was thought best to use the fresh blood agar alone, rather than the chocolate agar alone, the available personnel not permitting us to do both and study them with the requisite care. The findings were as follows: Non-hemolytic streptococci 33, hemolytic streptococci 16, green producing streptococci 32, influenza bacilli 3, micrococcus catarrhalis and tetrigenus were very frequent, but were considered of no significance. In the early part of the epidemic it was noticeable that there were few plates showing hemolysis or green production. Later this became almost universal, lessening as the epidemic subsided. Organisms resembling pneumococci appeared in 33 and were so recorded, but as only a part of these were carried through subcultures and tested for bile solubility, their identity as such is only presumptive.

Mouse inoculations with sputum from patients with diagnosed or strongly suspected pneumonia were made. Type I pneumococcus was found in five, type II in three, II subgroup in two, type III none, type IV eight, green producing streptococcus one, and negative finding four.

Very few lessons can be drawn from our study. The epidemic may be classed with those which occur with some regularity in the years which follow a great pandemic. It bears the same relation in time to the pandemic of 1918-19, as the recrudescence of 1895 bore to the pandemic of 1889-92. Influenza has been recognized in pandemic form since the sixteenth century, and four pandemics occurred in the nineteenth century. It is not unreasonable to expect several more pandemics in this century and many minor recrudescences.

Considerable work in many laboratories is being done at present with regard to the specific initiating cause. As a working



theory we may adopt the view that in general uncomplicated influenza is a mild disease and that it is the increased vulnerability of the pulmonary tissues and their consequent invasion by other micro-organisms which gives it so high a death rate. The possibility of preventing or lessening the severity of such infections is one of the problems the Medical Corps of the Army has set for itself.

## EPIDEMIOLOGICAL WORK IN THE ARMY.\*

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The semi-centennial report of the activities of the American Public Health Association opens with a statement by Dr. Stephen Smith to the effect that the death rate in New York City has been reduced one-half in the past fifty years. In other words, where fifty men died in that city fifty years ago, only one died last year.

No semi-centennial report of the achievements in disease prevention in the army has been written or contemplated. It seems appropriate to recall the fact that the researches conducted in military laboratories and the experiments made in camps and barracks have gone a long way toward bringing about this lowered death rate in New York City and all over the world as well.

The facilities for epidemiological work in the military service are almost unique. Not only are well-equipped laboratories and ample time for laboratory experiment provided, but a numbered and catalogued population, under excellent facilities for control, is made available for study. The field is large enough to make the findings significant and small enough to permit of accurate following up of the majority of the cases. It is the purpose of this paper to show something of the use which is being made of these opportunities.

Our present knowledge of the process of digestion of foods is based largely upon the observations of William Beaumont, an

army surgeon from an isolated Western post. In 1825 he treated an Indian half-breed for a gunshot wound of the stomach. The wound healed, leaving a gastric fistula. Beaumont gave the Indian foods of various kinds, watched through an inserted tube the process of digestion, and at regular intervals removed the food particles and made chemical studies of their composition. These experiments rival in importance the great achievements in experimental medicine of the present day.

The work of Walter Reed in establishing the fact that yellow fever is transmitted by the mosquito is too well known to require more than passing mention. General Gorgas, as Chief Sanitarian of the Canal Zone, stamped out the disease entirely in that area. It is by no means impossible that the accomplishments of these men and their co-workers will lead to the complete extinction of yellow fever within a comparatively few years.

Following the early studies of Wright, the work of Russel has reduced typhoid fever from a scourge to a place of one of the minor causes of disability in our army. In the Spanish-American war, one man out of every ten contracted this disease. The number of cases in our forces during the World War was two per ten thousand men.

The work of Colonel Bailey Ashford on Hookworm and its treatment has led to a tremendous reduction of the disease in the United States and other countries, particularly in Porto Rico.

The method of control of venereal diseases now followed in most cities was first tried out in the army and navy.

The contributions of Sternberg, Lagarde and many others could well be added to this list.

As a result of the lessons of the World War, epidemiological work in the army has been entirely reorganized. It is now undergoing a process of greatly increased development.

The concentration, under war conditions, of large bodies of young men from all sections of the country, into hastily improvised concentration camps, made rapid spread of communicable diseases among

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them inevitable. There were few problems then confronting the medical department more pressing or more difficult of solution than the control of these diseases. Owing to the shortage of specialists in public health work, the bureau of laboratories established, both in this country and in France, schools for medical officers for the intensive study of this subject. From this beginning, the present system of training in epidemiology has been built up.

Selected medical officers are now sent each year to the schools of public health which form a part of the larger medical schools. Preparatory to this post-graduate course, or immediately following it, the officer is detailed for one year at one of the central army laboratories. At the conclusion of this period, he is designated Sanitary Inspector of a Corps Area or large camp. His duties then become analogous to those of a municipal health officer.

Formerly, as was then common practice in public health work, the Sanitary Inspector concerned himself chiefly with matters pertaining to the cleanliness of the physical environment and the abatement of nuisances, but since the recent renaissance in knowledge of disease prevention, he has become an epidemiologist rather than an inspector. He devotes his attention to the detection and elimination of potential sources of disease, as typified in impure water supply, contaminated milk, prevalence of human carriers and the like. Under the direction of the officer in immediate command, he formulates orders for the regulation of the garrison in matters pertaining to sanitation. He is charged with the duty of seeing that these orders are carried out. In many cases, all his suggestions have the force of orders from the commanding officer.

At service schools of the line, the rudiments of disease prevention are taught as an integral part of the curriculum. This has been effective in securing from line officers a better understanding of the work of the medical department and a closer co-operation in its performance.

At every post a detailed record is kept of every case of illness in the command. A special history sheet which follows the soldier from station to station is kept for each man having syphilis or malaria. It is probable that a similar system of keeping case records of other chronic diseases will soon be inaugurated. All records of morbidity are finally assembled in the office of the surgeon general, where, in an annual report, they are consolidated, analyzed and tabulated. The usefulness of the annual report, which is based upon this data, is too well known to require comment.

In each corps area and at large camps, well-equipped laboratories serving definite geographical districts have been established, so that in addition to local laboratory facilities, each garrison has a recognized place to which specimens may be sent for expert examination. In emergencies, specialists are sent from the laboratories to distant camps to study epidemics and assist in their control.

In this brief summary it has been possible to sketch only a crude outline of the basis upon which the new epidemiological work in the army is being built. In the enormous field of labor of disease prevention which lies before the medical profession, the army is preparing to do its part. It is realized as never before that this can be best accomplished through a closer association with other workers. Now that large cities have stretched out and embraced formerly isolated posts and that military camps are being established near large centers, the army surgeon has new opportunities to establish solidarity with the medical profession.

In the words of Sir William Osler, "It is not the prevalence of disease or the existence everywhere of special groups of men to treat it that betokens this solidarity, but it is the identity throughout the civilized world of our ambitions, our methods and our work. To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, so that they may be



quickly available for the prevention and cure of disease—these are our ambitions. To carefully observe the phenomena of life in all its phases, normal and perverted, to perfect that most difficult of all arts, the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering and to heal the sick—this is our work.”

### TROPHIC DISTURBANCES OF THE LOWER EXTREMITIES IN RELATION TO SYPHILIS.\*

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In the routine of our daily practice we quite often come in contact with patients who present various pathological disturbances of the lower extremities which are at times very puzzling as to diagnosis and treatment. Because of the number of conditions which might be present and the similarity of the clinical signs it is of the utmost importance that the clinician be well versed in differential diagnosis, since proper treatment depends upon a thorough understanding of the diseased parts and the application of proper therapy. In many of these conditions the etiology is of obscure origin and the symptoms at times very distressing and of long duration. Therefore, in arriving at a correct diagnosis, the disease must be thoroughly investigated, e. g., history, duration of present illness, symptomatology, clinical aspect of the case, and complete laboratory report, such as urine, blood, spinal fluid, blood chemistry, etc.

Among the trophic disturbances often encountered may be mentioned syphilis, tuberculosis, trauma, neuritis, infection, frost-bite, thromboangitis obliterans, Raynaud's disease, erythro-melalgia, plantar neuralgia, diabetic gangrene, arterio-sclerotic gangrene, varicose ulcers, gout and other allied conditions. In order to make a correct diagnosis of any one of the above

conditions just enumerated, it is essential that we recognize the existing lesion and by the process of exclusion, rule out other symptoms that might cause possible sources of error. Several of these conditions, if not properly treated, will develop ulcerations and at times gangrene. In order to get results we must utilize everything at our disposal in order to arrive at a correct solution. We must do this early.

Fournier states that 20% of chronic leg ulcers are syphilitic. In my opinion this percentage is rather high since there are a number of diseases that will cause ulcerations which undoubtedly are overlooked and which are improperly treated. In arriving at a diagnosis of a syphilitic ulcer we must remember that there are other evidences of syphilis present. The ulcers are usually multiple, the edges are sharp or undermined, and have a granulating or sloughing base. It must be remembered that late lesions of syphilis may crop out at any time from two to fifty years after infection. However, reliance should be placed upon the blood Wassermann, cell count, globulin estimation and gold colloid test of the spinal fluid, clinical findings and history. In some cases a uniform swelling in either one or both extremities, accompanied by malaise and slight rise in temperature, should call for a Wassermann test. This condition may be accompanied by an erythema nodosum. At times, even the veins as well as the arteries may become infected with the organisms of syphilis. In the lower extremities we most often find the internal saphenous vein occluded. Pain in the thigh radiating downward is a common symptom. A hard, tender swelling, which later ulcerates, may make its appearance. Painful red nodules in the skin should be looked upon with suspicion. They are generally surrounded by a zone of inflammation and may involve any portion of the extremities. It must be remembered, also, that in syphilitic phlebitis the process always descends, while in venous thrombosis the process ascends.

Erythema nodosum and erythema multiforme should call for a Wassermann test, although, as a general rule, they accom-

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pany rheumatic fever and other infectious diseases.

The sabre tibia which we sometimes see is due to an osteo-periostitis, with gummatous ulcerations on the skin. The overlying tissues are usually inflamed and oedematous and there are often marked ulcerations upon the skin. Many of these ulcerations are fistulous and reach down to the bone. Severe pain simulating nueritis is the rule. In syphilitic arteritis involving the vessels of the lower extremities, spirochaetes have been demonstrated. A periarteritis and proliferating endarteritis may be present.

It is a well-known fact that a syphilitic gumma is apt to develop at the site of trauma. Many patients acquiring ulcers upon one of their extremities attribute them to some injury and the physician, as a result, is often mislead into overlooking an old syphilitic infection. Specific treatment in these cases would work wonders. Klauder, in a recent article in the A. M. A., states that in one of his cases of fractured femur the wound twenty-three months after injury was unhealed, and took on the appearance of an ulcerated gumma. After specific treatment was administered the wound healed in eighteen days. In many of his cases, syphilitic manifestations appeared within a short time of trauma, and in all cases specific treatment properly healed the wound which previously had resisted all surgical and medical treatment.

Notwithstanding the fact that a large percentage of the world's population is infected with syphilis, and the only logical therapy is specific medication, we must bear in mind that other conditions may give rise to these same ulcerations and these will not yield to mercury and iodide of potash. Only recently I saw a case of thrombo-angitis obliterans become gangrenous because of a minor operation upon the foot. Had this case been properly understood and the pathology known, amputation could probably have been avoided since it has been conclusively proved that to perform any minor surgical operation upon the extremities of a patient suffering

from this disease is a dangerous practice. On the other hand, I have seen cases of syphilis diagnosed as thrombo-angitis obliterans and amputation performed because specific treatment had not been instituted in time to prevent an advancing endarteritis. In regard to other trophic conditions, it is understood that each demands its proper respective treatment. The co-operation of the laboratory worker cannot be stressed too strongly, since with his aid a number of doubtful conditions have been solved and improvement noticed. This is well illustrated in the proper management of diabetic ulcers and other allied conditions.

On account of the limited time, I will not go into details concerning the various trophic conditions which I have mentioned, but will lay stress upon a proper understanding of the disease, thrombo-angitis obliterans, which has within recent years become recognized as a distinct clinical and pathological entity. I have seen this disease diagnosed by able clinicians as an unknown, mysterious disease of doubtful origin, Raynaud's disease, frost-bite, fallen arches, phlebitis, neuritis, syphilis, etc. Yet this condition is as easy to recognize as a typical case of measles. One of the deplorable features that exists, however, is the tampering with these lesions by chiropodists and chiropractors, who know absolutely nothing about the pathology of the disease and take it for granted that they are dealing with a trivial condition of the metatarsal bones or a subluxation of a spinal vertebra. If a correct diagnosis is made as soon as the lesion is recognized and proper treatment instituted it means the saving of the limb and, what is more important, in no small number of cases, the life of the patient. A large number of these cases are seen in various localities throughout the south, traveling from one physician to another in the hope of getting relief from their pain and suffering. The condition present is an occlusive thrombosis of the deep arteries and veins, beginning in the distal arteries of the limbs and extending upwards and involving the large



trunks of the foot and leg. A marked periarteritis may be present. A cross section of an acutely diseased blood vessel will show the lumen to contain a red or mixed clot with giant cells, leukocytes, endothelial cells and disintegrated nuclei in its periphery. The media and adventitia are also infiltrated with polymorphonuclear leukocytes. In the healed lesions, the vessels have a tendency towards the establishment of a supplementary circulation by the formation of vascularized connective tissue (organization) with canalization of same. This disease seems to have a predilection for Russian, Galician and Polish Jews, although some typical cases have been reported in other nationalities.

The symptoms are cramp-like sensations in the calf of the affected limb which become aggravated upon walking (intermittent claudication). A peculiar discoloration of the foot, dependent upon the pathological condition present, is always observed. It is usually of a reddish color, but may assume a dusky or cyanotic hue. A feeling of cold in the affected foot is almost a constant complaint. At times, red cutaneous nodules or cords make their appearance and may be extremely painful, and sooner or later in a large number of cases, trophic ulcers, which may cause excruciating pain, make their appearance. Upon palpation of the dorsalis pedis, internal or external plantar or popliteal artery, the pulsation will be either entirely absent or very much enfeebled. The treatment for a number of years resolved itself into a number of measures, such as baking, electricity, intramuscular injections of Ringer's solution, surgical measures, etc. In the *Journal of the American Medical Association*, March 31, 1917, I described a new treatment by means of the Bier's suction cylinder, which is unsurpassed by any treatment available at the present time and is still being used in various clinics in many of the large cities. In reference to etiology, I wish to state that, although a number of investigators suggest the spirochaeta *spallida* as an etiological factor, it will be found that the Wassermann reaction is

negative in almost every instance, and, besides, the symptoms are not influenced by specific treatment.

The following cases, taken at random, illustrate the importance of proper diagnosis since only in this way can we institute correct therapeutic measures which will alleviate the sufferings of the afflicted individual and cause rapid healing of these chronic trophic ulcers.

**Case 1.** L. R., age 35, married. Blood pressure: systolic 115, diastolic 85. Family and past history negative. Four months ago patient complained of pain in the right lower extremity, which became aggravated upon walking. This was soon followed by the appearance of a punched out ulcer, about the size of a quarter, over the outer aspect of the leg, which showed no tendency to heal. From the history, clinical signs and negative laboratory reports, syphilis was excluded entirely. Although he did not present any typical signs, a diagnosis of varicose ulcer was made, and proper treatment instituted. As a result, the patient made an uneventful recovery.

**Case 2.** L. S., Russian, age 26, tailor. Family and past history negative. Habits: 25 cigarettes daily, no beer or whiskey. Blood pressure: systolic 112, diastolic 80. Onset one month ago, when patient began to have cramp-like sensations in the calf of his left leg. Occasionally, while walking in the street, he was compelled to stop and stretch his leg until this annoying symptom disappeared. He soon had to give up work because of the appearance of a small, punched-out, painful ulcer upon the outer aspect of the little toe. Upon examination at the office it was found that he had all the typical symptoms of thrombo-angitis obliterans, which I emphasized in the beginning of my paper. He was placed upon the Bier's suction treatment and made very noticeable improvement. On account of a change in his business, he was forced to go to New York City, where he is still taking the treatment and, from last reports, is doing extremely well.

**Case 3.** Mrs. M. M., age 54, Jewess, was sent to me March 18, 1921, because of a

persistent ulcer upon the second toe of her right foot, which was painful and prevented her from walking. She had been treated for several months by other physicians with various remedies and local applications, but no change was noticeable in the general condition of the patient or the appearance of the ulcer. A complete physical and laboratory examination was negative except for the urine, which showed a heavy trace of sugar. She was referred to a competent clinician who placed her upon a strict diabetic diet and had her report frequently for laboratory tests. The ulcer entirely healed in a few weeks and the patient improved rapidly in health.

Case 4. J. P., age 34, married, was seen at the office February 4, 1922. His chief complaint was the existence of an ulcer upon the inner aspect of the left leg, which he attributed to trauma, having been injured by a box which had fallen upon his leg a few weeks previously. His family and past history were negative in all other respects. The treatment before coming to me consisted of local applications of stimulating ointments, with no improvement in his condition. A routine laboratory examination was done and the Wassermann reported four plus. He was immediately placed upon intense specific treatment and the symptoms improved rapidly.

Case 5. F. B., age 40, was seen April 15, 1922. He had a large ulcerated surface upon the anterior aspect of the right tibia. He stated that the condition had persisted for over two months. He attributed it to an injury. Treatment during the entire time had consisted only of ointments with no change at all in the size and appearance of the ulcer. The laboratory findings, including the blood, urine, spinal fluid, etc., were reported negative. An x-ray examination of the bone, however, disclosed a destruction of about two inches of the shaft of the tibia, with the diagnosis of osteo-myelitis. An operation was advised. The patient intends to go to the hospital shortly.

In conclusion, let me stress the following points:

First, co-operate with the laboratory worker before arriving at a diagnosis in all cases in which trophic disturbances of the lower extremities are involved.

Second, learn to differentiate these various conditions by a thorough study and knowledge of their characteristics and clinical signs.

Third, although syphilis plays an important part in the production of trophic ulcers of the lower extremities, remember that there may be present a number of other conditions of close resemblance. These demand their respective treatment.

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## PRE-OPERATIVE AND POST-OPERATIVE STUDIES IN GOITER.\*

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This paper is based upon a pre-operative and post-operative review of 300 goiter cases operated on by the late Dr. Edward G. Jones and the writer, from June, 1915, to January 1st, 1922. Since there are some thirty-five or forty points covered in the clinical histories of these patients, and because of the limited time allotted this paper, only the major points will be considered.

### Classification of Cases.

We have for several years followed the old classification suggested by Plummer and Wilson of the Mayo Clinic, but in this series of cases have endeavored to group them according to Plummer's new classification in which he divides goiter into three definite types: namely, colloid, adenomatous and exophthalmic, and claims that all other types seen clinically are either variations or combinations of these three.

Assuming from a study of the histories of these patients that we have not operated on any cases that might fall in the colloid type of goiter usually seen in young girls, though admitting a chance of error

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because of some incomplete data, we have grouped our cases as follows:

Group 1—

Frank exophthalmic 98 (32 2-3%)

A. Definite hyperthyroidism without exophthalmus .....37 (10 1-3%) 135

Group 2—

Adenoma with hyperthyroidism .....133 (44 1-3%)

A. Adenoma without hyperthyroidism .....32 (10 2-3%) 165

Total .....300

**RACE.** Nineteen (6 1-3%) of these patients are negroes. This number, however, does not represent the true ratio in the two races, because most of our colored patients were operated on in the college or Grady Hospital clinics and their records did not reach our office. Four of the nineteen negroes had frank exophthalmic goiter. Two had definite hyperthyroidism without exophthalmus, and are listed in group 1 A. The remaining thirteen had multiple or single adenomata, five of which were toxic and eight non-toxic.

**SEX.** We find in this series only fourteen (4 2-3%) males. This number probably does not represent the average percentage of sex incidence in the South, since our total number of cases studied show a ratio of about seven per cent. One negro is included in the male list. This patient was of the severe exophthalmic type, and according to our records is the only case of true exophthalmic goiter seen in the male colored race during our whole thyroid experience. Eight of the fourteen male patients had exophthalmic goiter. The remaining six were of the non-toxic adenomatous type.

**RELATIVES.** Twenty-seven per cent of our list gave a history of one or more relatives having goiter where aunts and cousins were included. If the inquiry is limited to the immediate family the percentage is reduced about one-half.

**AGE.** The average age of patients in group 1 (exophthalmic type) was 31, while those in group 2, or the adenomatous type,

averaged 39. The duration of symptoms in the exophthalmic cases range from one to three years. Those of the adenomatous type average approximately eight years.

**Other Influencing Factors in Symptomatology.**

**PELVIC DISEASE.** Approximately sixteen per cent of the whole series gave a history of some pelvic disorder. This number is probably no larger than would be the case in most any series of three hundred female patients. However, if we study a similar number of individuals with colloid or simple goiter, the percentage would probably be more than doubled. If the claims of a definite relation between the thyroid and ovary are to be substantiated it would seem that the basis for this claim must be found in the colloid or simple type of goiter usually seen in young girls.

Many of these patients date the onset of their symptoms from some acute infection, especially tonsillitis, pneumonia and influenza. Careful inquiry, however, will often reveal the fact that some symptoms of hyperthyroidism antedated the infection. Such symptoms as nervousness, tachycardia, palpitation, loss of weight and general muscular weakness, especially marked in the lower extremities, were present in more than ninety-five per cent of the cases in group 1.

A majority of the patients in group 2 who had adenomata with hyperthyroidism exhibited similar symptoms though in a less marked degree. If one gives the average thyroid patient the careful, deliberate and painstaking study that every goiter case deserves, he may predict with a reasonable degree of accuracy the ultimate outcome in the majority of cases.

**Post-operative Observations.**

A partial bilateral thyroidectomy was done in one hundred and twenty-two of the cases in group 1. Thirty-seven of this number were subjected to a preliminary ligation of one or both superior poles, because a radical resection was contraindicated at the time, or because there was some doubt as to the patient's ability to

stand surgical punishment.

A subtotal thyroidectomy was subsequently done in twenty-six of the thirty-seven cases who had a preliminary ligation. Four of the eleven remaining cases showed marked improvement following ligation, but because of apparent permanent cardiac and renal impairment are not considered safe risks for further surgical work. Two of the eleven patients are now in the hospital for x-ray therapy. One returned to work soon after ligation, and died with acute dilatation of the heart, some four months later. Two of this list reported no improvement and refused further operation. Five others improved to such an extent that they declined a second operation. One of this five is the negro male patient previously referred to who had a double ligation in March, 1921. Four months later he refused a second operation, considering himself cured. He returned to hospital in February of this year with heart and kidneys so damaged that radical surgery was contraindicated. He has shown only slight improvement under x-ray therapy.

Excepting four cases who had a preliminary ligation, and on whom a subsequent partial bilateral thyroidectomy was done, the operative procedure practiced in group 2 was a simple enucleation of the adenoma, plus the resection of a part of one or both lobes where the symptoms seemed to indicate it.

Letters of inquiry were sent to all patients in this series who were operated on prior to April 1st, 1922. The following questions were included in our letters:

1. "Were you benefited by operation?"
2. "If benefited, to what extent?"
3. "How long after operation before the greatest benefit was felt?"
4. "Have you experienced a return of any complaints which you had before operation?"
5. "Have you noticed any return of enlargement in your neck?"

We have always made it our practice to keep in close touch with our goiter patients following operation, so that in ad-

dition to the questionnaire, we have had an opportunity to make personal post-operative observations, ranging from one to five years, in a large number on this list.

One hundred and eighty-eight replies were received to our inquiries; eighty-two of this number from patients in group 1, and one hundred and six from those in group 2.

Fifty (61.6%) out of eighty-two patients in the exophthalmic group report that they are entirely well, from one to six years after operation. An additional twenty-eight of this list are so much improved that they are able to lead practically normal lives, though such symptoms as exophthalmus, nervousness, tachycardia and tremor persist in a moderate degree. Nine report a slight return of thyroid enlargement, one of which was operated on a second time and is now well.

Two of four individuals in group 1, who had only a double ligation, reported slight improvement; the other two reported no benefit. More than eighty per cent of the patients in the adenomatous group who replied to our inquiry, report a complete cure from one to six years after operation. Practically all of the remaining number in this list consider themselves well, but we have placed them in the list of patients not completely cured, because of the persistence of two or more symptoms on continued hyperthyroidism.

Four patients reported a recurrence of the adenoma, one of which was operated on a second time.

Your attention is called especially to the fact that in only two cases in the whole series was it necessary to do a second operation. If one follows routinely a plan of sacrificing a maximum amount of thyroid tissue in toxic goiter, especially in the exophthalmic type, he need not be concerned over the probable necessity of a secondary thyroidectomy.

We have had no patient to develop myxedema following operation. Question four was evidently somewhat misleading, since too many patients in the exophthalmic group reported immediate relief. It is



true that the average case will begin to show progressive improvement as soon as the immediate effects of the operation have subsided, but our observations lead us to say that from six to twelve months must elapse before full operative benefit is experienced. Many patients in the adenomatous group, where the growths were so situated that respiration was embarrassed, did have immediate relief from the operation.

**MALIGNANCY.** Five cases of carcinoma were found in this series, three of which came to operation. Two of the five were inoperable, and in only one of the three patients operated did we suspect malignancy before operation. Four of these cases are listed in group 2, the other in group 1 A.

**MORTALITY.** Our mortality in this series is 1%; in the last two hundred consecutive thyroid operations, 1-2 of 1%, and no deaths in seventy operations during the past eighteen months.

**BASAL METABOLISM.** Since this phase of our thyroid study applies to such a small per cent of this series, we have not attempted to compile the data, but have incorporated an expression from our associate, Dr. W. C. Goodpasture, to whom we are greatly indebted for his painstaking technic and careful observations in routine metabolic readings in our thyroid work during the past year.

The basal metabolism or minimal metabolic change of a rested individual in the post-absorptive stage, generally speaking, is a positive index to the amount of active thyroid products in the circulation. Exceptions to this assertion include fevers, primary anemias, leukemia, pituitary dysfunction, severe diabetes, and other well advanced wasting diseases,—any one of which is readily diagnosed by careful examination.

Our studies, including basal metabolic observations on approximately one hundred cases in the past eighteen months, have enabled us to form fairly definite conclusions as to the value of a knowledge of the

metabolic rate in dealing with thyroid affections.

As an aid to differential diagnosis between mild hyperthyroidism and incipient pellagra or tuberculosis, or the various neuroses simulating mild thyrotoxicosis, studies in metabolism have come to be a trusted feature of our laboratory investigations. Though the evidence furnished may be only confirmatory of clinical conclusions in a majority of cases, it lends much to confidence in these conclusions. In a less proportion of cases it has positive weight in arriving at the final diagnosis.

In frank hyperthyroid cases no symptoms or signs alone or in combination are more trustworthy than a carefully estimated basal metabolic rate in judging the degree of toxicity. The common fluctuations in toxicity may be read from the basal metabolic rate quite as readily as from the clinical study. Changes in toxicity following surgical intervention or other function controlling treatment are registered most satisfactorily in metabolic observations. In fact, the results of treatment in those cases where permanent damage has been done to the circulatory or nervous systems are best watched by metabolic studies, since certain clinical manifestations remain, despite entire relief from hyper-secretion of the thyroid gland.

By placing reliance in the basal metabolic rate hyperthyroidism is found present in a considerably less proportion of suspected cases than the clinical picture would lead us to believe. On the other hand, certain patients, mostly girls with goiter of the colloid type, are shown to be in a hypothyroid state when some, at least, of the clinical manifestations would lead to suspect hyperthyroidism. In the treatment of these hyperthyroid individuals metabolic observations are of greatest value in determining both the degree of effect, and the duration of that effect.

#### DISCUSSION.

Dr. C. W. Roberts, Atlanta:

With a better understanding of the pathologic physiology of the thyroid, and the morbid histology presented under the varying types of diseases to which it is subject, has come a marked advance in the treatment of its disorders as well as a spectacular improvement in the safety of operations directed at its relief. Kocher, whose name is suggested

wherever the thyroid is mentioned, reported a mortality of forty per cent in the first seventy cases of simple goitre operated upon; while C. H. Mayo lost twenty-five per cent of the first sixteen cases of exophthalmic goitre subjected to operation. Such astonishing losses are no longer reported, even by the occasional worker in this highly specialized field; while from the clinics of the masters we have voluminous reports showing a mortality as low as one or two per cent.

Credit for placing thyroid surgery into the class of operations attended by a negligible mortality, must be given to American students of strumitis, notably among whom stand the names of Plummer, Kendall, Crile, Mayo, etc.

There are two large clinical groups of goitre cases demanding surgery. First, the hyperplastic gland—the so-called exophthalmic goitre, characterized by either general hyperplasia of the thyroid, or by a more localized process set up in or around a contained adenoma; and second, the non-toxic or simple group manifesting pressure symptoms sufficient to call for excision. It is to be remembered that some five to twenty per cent of exophthalmic goitre do not show a noticeable enlargement of the neck.

In the first group, viz., the hyperplastic type, phenomenal changes in the way of improvement are noted by the shutting off of excessive doses of thyroid secretion. A pulse of 120 is seen to fall to 80 in a manner comparable to the fall in temperature noted in the crisis of lobar pneumonia. An even more tedious group from the standpoint of surgical technique is the tumor class—the adenomas—cysts, large colloids, etc. Here we have an entirely different problem to contend with. Thyroid secretion is elaborated in either normal or minus quantities, while symptoms arise from pressure upon important neck structures. In connection with this group, particular interest concerns the recurrent laryngeal nerve which may be displaced by the uneven growth of the thyroid, placing the nerve in the path of ordinary safe dissection, where it is liable to be cut, pinched or paralyzed by traction. In many such cases, paresis of the nerves supplying the larynx comes about from long continued pressure before the operation for relief is undertaken. It is advisable, therefore, to take clinical stock of the nerve supply of the larynx before proceeding surgically. The laryngologist may thus save the surgeon many heartaches by discovering these anti-operative complications.

The surgical acumen of the operator is sorely taxed in the care of both classes above mentioned, and his judgment ripened by rich experience in goitre work constantly called into play. As exacting, however, as may be the duties imposed upon one who elects to care for sufferers in this interesting field, the rewards in the form of clinical cures are satisfactory and furnish a high degree of compensation.

I am sure that Dr. Waits, although he did not say so, does not operate upon any case of goiter now without making a basal metabolism test.

There is another type of case that simulates hyperthyroidism but really is not. You see these in the cases down here that come from the goiter areas of Minnesota and Iowa, possibly women who have married and have not borne children, and in whom menopause begins to come on at the age of thirty-five or forty. Some of these women have the remnant of a colloidal goiter left over from childhood, and do not show a toxic condition.

Dr. L. W. Grove, Atlanta:

I am very sorry not to have heard all of Dr. Wait's paper, but there were certain points brought out which were very important, and which were well illustrated in two cases which I have under observation now.

There is probably no surgical problems more difficult of solution than the proper management of the extreme toxic type of goiter. The simple type of goiter gives us very little concern today, but the case of extreme hyperthyroidism is quite to the contrary. I have one of these cases in the hospital now, who probably came nearer showing all the symptoms of an extreme hyperthyroidism, than any case we have ever seen. She had profuse diarrhea, constant vomiting, had gone from 130 to 60 pounds, showed a tachycardia with pulse 145, hypertrophy of the heart, in fact, all the characteristics of a hyperthyroidism of the most extreme type. She was put to bed, isolated for two weeks with sedatives for sleep and under this treatment the diarrhea subsided, there was improvement in her appetite and she grew less nervous. During this time I was seeing her each day and my mere presence in the room would cause a rise of pulse rate from 20 to 30 points. Believing that she was a case to be protected against every type of trauma, the following procedure was decided upon: She was given daily doses of gas oxygen each morning and after a few days, when she had become accustomed to taking the gas without being told, a unilateral ligation under anoci-association anesthesia was done in bed. Her pulse recorded at 10 minute intervals remained under 130. The same procedure was repeated at the end of three days, her pulse remaining under 110. Experience teaches us that such would not have been the case had this patient been operated under usual conditions.

Upon the other hand, if she had been managed as a simple goiter we would have experienced a mortality. We can re-

member during recent years that the mortality rate in this type of goiter case was practically 100 per cent; due to the fact that we were not familiar with the danger signals, or how to combat them. This patient will be rested in bed for a month or six weeks, at the end of this time the gland will be removed at two sittings.

The second important point was the one brought out by Dr. Roberts, in which he emphasized the importance of a careful study of these patients' throats before operation. A short time ago we saw a case, a woman from Florida, in whom there was found certain voice changes, due to a partial paralysis of the abductors, and if we had not had a careful study of this throat before operation, I probably would have been blamed with the condition which might have followed.

Dr. Waits, closing the discussion:

Concerning Dr. Roberts' remark on the dangers associated with the removal of the large adenomatous type of goiter, we believe that all of these cases should be operated under local anesthesia. If the patient is awake we are more able to steer clear of the recurrent nerves, and if in the delivery of the large growth too much pressure is exerted on the trachea, with resulting embarrassment of respiration, one is in much better position to overcome such difficulties than would be the case if operating under general anesthesia. Dr. Davison probably misunderstood my remarks on basal metabolism. We do routine metabolic readings before and after operation, and have come to feel that one cannot afford to be without this aid in the study of thyroid disorders.

In the management of the extremely toxic cases one must proceed always on a plan of not being hurried into operation, and not doing too much at one time. We try to reserve judgment as to the extent of operation on these cases until we see how the patient reacts to our pre-operative preparation.

## REVIEW OF THE GEORGIA STATE SANITARIUM REPORT.

H. D. Allen, Jr., M. D.

Commissioner of Health, Baldwin County,  
Milledgeville, Ga.

Within a day of each other, I received the 1921 reports from the Manhattan State Hospital and the Georgia State Sanitarium. As much effort has been made to standardize such reports, the comparison was most interesting and reflected only credit to our own institution, especially when one considers its isolation in constituting practically the whole problem of the state's care of mental defectives and also the limit in number of the official staff. With these facts in mind, I feel constrained to comment a bit on the Georgia report for whatever it may be worth to others less interested in a detailed study of the report.

The report is the seventy-eighth annual report and the presentment to the governor of the state by the board of trustees certainly shows the interest of the entire institution to be primarily concerned with the best possible care of its charges with the means at its disposal. The per capita cost per day for each patient being a fraction less than sixty-six cents, everyone should feel that the most rigid economy is practiced, and only marvel at the amount



of good accomplished, especially when considering that the sixty-six cents provides food, medical attention, nursing, and, to a large extent, clothing, as well as a goodly part of the board for the medical staff and nursing force. The special appropriations recommended by the trustees to the legislature, while they amount to approximately \$500,000, are not at all untimely, as each item represents an urgent necessity if the present good care of the patients and efficiency of the organization is to be maintained in keeping with the demands of the times.

The most pleasing reference to Dr. R. H. Hutching's investigation shows plainly the wholesomeness of a well-conducted effort to benefit conditions in a rational manner. The humane care of, or dealings with, the insane may be both highly scientific and artistic, but it is never perfect, for the chief factor in any mental disorder is the inability of the insane person to adjust behavior to existing circumstances and ever presents new problems of control. The hope for recovery is with the physician, the nurse, and the social group interested in the individual patient. Very rarely recovery means anything to the patient when the morbid intellect demands the most treatment. Strangely enough, the social reaction towards the insane is an emotion of sympathy peculiarly commingled with grief, or contempt and mirth. With this in mind, and recalling Dr. Hutching's report, it seems that the time is also well at hand to incorporate a social work department, as this would relieve somewhat the need for observation hospitals in the larger cities, and would greatly aid the institution in acquiring valuable data concerning the pre-commitment history of each admission; make possible and profitable a form of voluntary commitments and relieve much expense in facilitating early paroles.

The mention of the need for a special provision for the criminal insane should be well taken, and I am sure a digression from the report would include a provision for insane criminals.

The general report of the superintendent is a preliminary to the detailed reports of the various departments. The general figures of interest quoted are: Patients in the institution at the end of 1921, 4,598, of whom 700 are on furlough. Four thousand and ninety-seven is given as the average daily number of patients in the institution. The question of discharging the harmless and inoffensive in spirit is given a paragraph, and surely the superintendent states the case correctly when he says this is more difficult than just passing through the wards and deciding offhand that many are harmless and would be as well off at home. The expedited commitment by a commission of two physicians and a lawyer is endorsed after a trial of three years.

The clinical director's report presents so many valuable statistical facts that it is really hard to pick out the most interesting revelations. The notes on the diagnostic groupings of the admissions for 1921 should be reprinted and circulated to every physician in the state. The most interesting figure of the diagnostic table for all patients in the hospital during the fiscal year is the very large accumulation of the "manic depressive" group, 1,058, or 25% of the total. This group constitutes the largest percentage of admissions or a little more than 35%. It also constitutes the largest percentage discharged through furloughs and deaths, and it is quite coincident that discharges and admissions from the institution for the one year furlough is exactly 100%, exclusive of deaths, which represent 15%. These percentages are drawn from the total manic depressive population and based upon the denomination of the 1921 admissions. The furloughs and discharges, however, cannot cover but a period of two years, and as this rate of admission for this particular group has been fairly constant for the past two years, the recent management of this group is everything that one could expect, for should this ratio remain constant it would establish a two-year balance for manic depressives, even with the present efficiency of a purely de-

scriptive diagnosis. This peculiar coincident, however, when applied to the total manic depressive group of the institution is at present overbalanced with a 25% accumulation only to be reduced by a 5% death rate for the total number of 1,058. Surely this group is deserving more consideration than it can now possibly receive from a medical staff, where the ratio of physicians to patients is a little less than 1 to 500. The "undiagnosed psychoses" group very closely parallels the manic depressive group, with a total accumulation of 480. In distinct contrast with these past two groups mentioned is general paralysis of the insane, where a balance of deaths, discharges and furloughs, against accumulation, is distinctly in favor of the former, though this is partly explained by the phenomenal drop in the number of white males so diagnosed during the year.

The percentage of admissions showing positive Wassermann reactions is 15.5%, and only 40% of this number were diagnosed as general paralysis, or 60 out of 146. The possibility of some of the remaining 86 becoming chronic hospital residents and later developing some form of neuro-syphilis with or without treatment, could be observed with much scientific interest.

The table of deaths notes the fact that tuberculosis still heads the list of causes of deaths, even though twenty less than the previous year. This decrease is singularly significant in view of the fact that much effort was made during this year to relieve the overcrowding and more attention was given to diversion through vocational therapy efforts and daily walks for as many patients as it is possible to get out of the building.

In reviewing the patients admitted by counties, the most striking numeral is 25 for Baldwin, the home county of the institution, leaving only a greater number for Fulton, Chatham and Bibb. According to Baldwin's population of 14,000, exclusive of inmates of the sanitarium and prison farm, Baldwin's admission rate for the year is five times the average of the entire

state population of 2,900,000. This points towards several factors: First, the lack of prejudice to a home institution allows early admissions and a maximum of benefit from the treatment. If these cases could be followed up this may be proved a fact, but, as it is, it can only remain the way for Baldwin county to feel about it. The number, however, is increased by many people wandering into the sanitarium through a Baldwin county commitment, and relatives of the sanitarium's inmates move here to be near their dear ones, who are often paroled to them here, and after an expiration of the parole often have to be re-committed. The placid and charitable attitude of Milledgeville and Baldwin county people towards unstable and insane persons is peculiarly inducive to a certain unstable class of people that find comfort in a residence here, and in turn furnish the increased commitment to the state sanitarium. If the large insane population of this county multiplies, the complexes or difficulties of the fixed or stable population, it is surely evolutionary and not contagious or occult, when it is considered that the insane have been concentrated in Baldwin county for seventy-eight years. This also, more or less, shows that a multiple system of caring for the insane would greatly increase the number for the state's care and support, temporarily at least. This, though, is not intended for an argument against psychopathic hospitals in connection with the medical colleges, as I firmly believe the more and earlier mental disorders are treated, the greater will be the benefit of the state's work and the nearer our problems of mental hygiene will approach solution.

Under the heading of occupations there are 540 classified under agricultural pursuits, out of the total of 989 admissions for the year. If this represents the rural environment, which is given as 589, and the 615 with less than a common school education, it would be most interesting to balance this against the percentage of rural population for the whole state. Should there be an overbalance of admissions from the percentage of rural inhabitants. as



well as the more or less illiterate, then a lack of educational advantages might be indicated as an etiological factor in insanity.

The pathological laboratory report is most interesting, not alone from the amount of work done, but also from quantity and variation of actual proven pathology. The high percentage of routine findings speaks for most careful work. The 33% positive Wassermann's for the group of negro males is particularly a good check on the laboratory's technique. The 510 examinations of spinal fluid, with 230 routine showing only 62 pathological fluids, shows a most diligent search for neuro-syphilis. Of the routine urinalyses, 147 out of 630 examinations showing pus; 485 ova and animal parasite infections were shown in 1,040 microscopic examinations of feces. If correlated clinically this could certainly offer a wonderful field for speculation and research on the influence of focal infections on the psychoses as well as the physical condition of the patients.

The dentist's report shows that he has his hands full for such a large number of patients, but it seems that much more oral prophylaxis would be of great value, such as a routine cleaning of mouths, instructions in oral hygiene to the nurses, and more continued treatment of pyorrhoeal conditions, even if of the most conservative nature. Much of this work could be done by dental assistants, that, with a little training, could be recruited from the nursing staff.

The report of the training school is most thorough and apparently of greatest benefit to the institution as well as the nursing profession at large; however, it is most regrettable that its influence is not greater for men attendants, for no word from the male department makes the whole report seem incomplete.

The other departments show the usual volume of business for so large an institution, and their tables of records are unusually clear and concise. The gross profits from the farm and dairy operations of

\$43,000.00 shows that there is still pay in tilling soil when a market is always available.

In conclusion, the report is prepared in the best form and is most attractive as general reading for everyone interested in Georgia's greatest charity, and can profitably be studied by every physician interested in the mentally sick.

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### A CASE OF PRE-DIABETES WITH BRONZING OF THE SKIN.

Spencer A. Folsom, M. D.,

Chief Resident Physician, Grady Hospital,  
Atlanta, Ga.

Case No. 12097, a dark complexioned, obese female, aged 33, entered April 13, 1922, with a chief complaint of an initial chill, fever, cough, general weakness and nervousness. Duration two weeks.

**FAMILY HISTORY.** Father died of yellow fever, age unknown. Mother died of typhoid, age 39. No brothers or sisters. Otherwise unimportant.

**HABITS.** No tea, alcohol, tobacco, drugs or venery. Two cups of coffee a day.

**INJURIES.** None.

**OPERATIONS.** In 1912, at age of 23, was operated on for "tumor of the womb." No complications. In 1921, at age of 32, cervical and perineal lacerations were repaired. No complications.

**CATEMENIA.** Menses began at 15 years. Have been normal in every way.

**MARITAL.** Married 14 years. Three children living and well. No miscarriages. Husband in good health with exception of periodic attacks of asthma. Is not living with husband now.

**PAST HISTORY.** Born in Montgomery County, Ala. Lived there all of her life until three years ago, when she came to Atlanta. Has been here ever since. Had measles, mumps and whooping cough when a child. No complications. Influenza in August, 1918. In bed two weeks. No complications. No history of malaria. Color of skin was first noticed to change two years ago, after birth of last child. Patient states that change began in no one

place in particular, but was from the first generalized, the color gradually assuming a light brown hue.

#### PRESENT HISTORY:

On April 1, 1922, patient had a severe chill lasting about three minutes, followed by a feeling of extreme warmth, which she interpreted as a high fever. There was general myalgia and weakness with a harassing, unproductive cough paroxysmal in type. A physician was called in attendance who pronounced the case one of influenza. For the past week night sweats have greatly annoyed the patient, the cough somewhat moderating.

Appetite good, bowels regular, no digestive symptoms.

Pulmonary. Cough as noted paroxysmal in type since onset of present illness. No special time of day or night most noticeable. Unproductive. No pains, no hoarseness or aphonia. Loss of weight 15 pounds in three months. Best weight 155 pounds. Loss of strength since last attack of influenza in 1918, but most noticeable since onset of present illness.

Circulatory system, negative.

Genito-urinary system. Nocturia usually once a night. No increased frequency. No pain. Leucorrhea for several years.

Joints. Negative.

Nervous. Some insomnia at infrequent intervals. No hyperesthesia, anesthesia, paraesthesia. No pain in any part of the body.

Special senses. Negative.

Summary of History: Operated on in 1912 at age of 23 for "tumor of the womb." Typhoid at age of 24. No complications. Influenza at age of 29. No complications. Operated on in 1921 at age of 32. Repair of cervical and perineal lacerations. Generalized pigmentation of skin since birth of last child two years ago. Loss of weight fifteen pounds in three months. Initial chill and fever for past two weeks. Unproductive, paroxysmal cough for past two weeks. General myalgia and nervousness for past two weeks. Night sweats for past week.

PHYSICAL EXAMINATION: Exami-

nation showed an obese female about 35 years of age lying quietly in bed with no evidence of pain. The entire body was pigmented, the color being that of a light brown. The mucous membranes were normal. The eyes, neck, heart and lungs were negative. Herpes labialis was present. Teeth were very bad, pyorrhea was present. Large cryptic tonsils. Greatly thickened abdominal wall, obese with no tenderness, masses or spasm. No evident hepatic or splenic enlargement. Vaginal examination demonstrated second degree uterine retroversion, unilateral cervical tear, cystocele and second degree perineal laceration. The patellar reflexes with reinforcement were absent and there was a slight bilateral Babinski equal on both sides. During her illness the blood pressure averaged systolic 90-95, diastolic 62-65.

#### LABORATORY EXAMINATIONS:

Hemoglobin estimation (Sahli) 87%. Erythrocytes 4,500,000. Platelets normal. Leukocytes 8,100-8,150. Differential Count: Polymorphonuclears 68-72%; small lymphocytes, 21-26%; large lymphocytes, 6%. No malaria parasites demonstrated. Two blood Wassermanns, negative. Spinal Wassermann, negative. Urinalyses, three catheterized specimens averaged 16-40 oz., specific gravity 1.012-1.020, acid reaction, no sugar, one plus albumin, a few pus and red blood cells, an occasional hyaline cast.

Phenolsulphonaphthalein Test: First hour, 20%; second hour, 20%.

Mosenthal Two Hour Renal Test: Normal day amount, no fixation of specific gravity, no demonstrable kidney fatigue, no nocturia.

Blood Chemistry: Blood urea, 17.6 mgm. per 100 c. c. Blood non-protein Nitrogen, 42.8 mgm. per 100 c. c. Blood creatinin, 2.0 mgm. per 100 c. c. Blood sugar, 111.0 mgm. per 100 c. c.

Glucose Tolerance Test: (Twelve hour fast).: One hour before ingestion of glucose, 87 mgm. per 100 c. c. 100 gm. of glucose in a cup of coffee. Thirty minutes after ingestion of glucose, 222.2 mgm. per



100 c. c. One hour after ingestion of glucose, 200.0 mgm. per 100 c. c. One hour and 30 minutes after ingestion of glucose, 166.6 mgm. per 100 c. c. Two hours after ingestion of glucose, 133.3 mgm. per 100 c. c.

Roentgenogram of Chest: Negative.

Roentgenogram of Teeth: Negative.

Patient was admitted with a temperature of 101.1 F., pulse of 100 and respiration of 22. On the second day the temperature fell to 98.3 F., pulse 94 and respiration 22. After this the temperature fluctuated mildly from 98.5 up to 99.1 F., the pulse varying from 80 to 115 and the respirations remaining constantly around 22-24 until the twenty-sixth day of her illness, when the temperature suddenly rose quickly from 98.3 F., to 102.3 F. The pulse remained at 74 and the respirations 22. Pulse was very thready and stimulation initiated. Examination demonstrated a lobar pneumonia, lower left lobe. Patient vomited constantly, continued to grow weaker despite therapeutic efforts and ceased on the twenty-seventh day of her illness at 4:40 A. M.

As the pigmentation was the predominating symptom after the subsidence of the acute infection for which she entered the hospital, the causes of pigmentation of the skin were considered and elimination practiced until a final diagnosis was reached. The conditions causing pigmentation of the skin that were considered in this case were as follows:

1. Addisons disease.
2. Leukemia (splenomyelogenous, pseudoleukemia).
3. Tuberculosis.
4. Malignancy (carcinoma, sarcoma, especially retroperitoneal sarcoma).
5. Malaria.
6. Aneurysm (especially abdominal).
7. Pancreatic disease (diabetes).
8. Exophthalmic goitre.
9. Drugs, e. g., silver salts.
10. Pellagra.
11. Pelvic conditions: Pregnancy, ovarian tumors, uterine tumors.

#### CLINICAL DIAGNOSIS:

1. Chronic interstitial pancreatitis.
2. Lobar pneumonia, lower left lobe.

May 9, 1922, 10:30 A. M.

NECROPSY. The body of an adult female, well developed and very obese, the skin had a peculiar bronze pigmentation. No skin lesions or marks of an operation. Hair normal. Admitted to the hospital April 15, 1922, with a chief complaint of chill and fever for the past two weeks. Pre-mortem diagnosis of chronic interstitial pancreatitis, lobar pneumonia left lower lobe.

ABDOMEN. An incision was made from the suprasternal notch to the pubis. The abdominal wall was very thick, a large amount of yellow fat being present. The thickness of the muscles and fat measured three and a half inches. No free fluid in the abdominal cavity. The peritoneum and omentum were normal. The stomach and intestines were normal in color and freely movable, no adhesions. The appendix was normal. The spleen was large and undergoing degeneration, soft, easy to cut. The kidneys were in the normal position and of normal size, the right being slightly larger than the left. On section the left was normal and the capsule removed without any difficulty, no enlargement of the pelvis noted. The right kidney was slightly larger than the left and on section that capsule retracted, but removed without difficulty. The liver was of normal size and did not show any pathologic change. The gall bladder was normal and did not contain any stones. The bladder emptied on pressure. The suprarenal bodies were very small and very little of them could be found. The pancreas was very small and difficult to cut. The pancreatic duct was very large and dilated and near the Ampulla of Vater the duct was almost obliterated. The head of the pancreas was very small, a chronic interstitial pancreatitis. The uterus was normal and showed no fibroid degeneration, the right tube and ovary were normal. The left tube was normal, but the ovary showed cystic degeneration. The left round ligament was

longer than normal. The urinary bladder was normal.

**CHEST.** On revealing the contents of the thoracic cavity, the heart and lungs were found to occupy the normal relative positions. The left lung was bound down with tough, fibrous bands—a chronic fibrous pleuritis. The lower lobe of the left lung showed consolidation which was complete—the stage of red hepatization. The upper lobe of the left lung showed beginning consolidation. The right lung was free and no fluid was demonstrated in the pleural cavity. The right lung was normal. The heart was of the normal size and the pericardial sac showed no pathologic change. The sac contained the normal amount of fluid. The valves of the heart were normal. The aorta showed no change. The lymph glands around the lung hilus were slightly enlarged. No evidence of tuberculosis was found in the lungs.

#### **PATHOLOGIC DIAGNOSIS.**

Chronic interstitial pancreatitis.

Obesity.

Cystic degeneration of the left ovary.

Lobar pneumonia, red hepatization stage, lower left lobe.

#### **DISCUSSION.**

This case presents many interesting features which must attract our attention and force us to acknowledge certain facts hitherto not brought before us in the literature on pre-diabetes, namely that bronzing or pigmentation of the skin can and does occur in this condition. It must be clearly understood, however, that we include as clinical pre-diabetes all subacute and chronic conditions of the pancreas resulting in a lessened carbohydrate tolerance which manifests itself in a high blood sugar as demonstrated in the glucose tolerance test.

The patient under consideration gave no past or present history which would lead us to suspect her true condition except the obesity and the pigmentation, which findings were incidental to the physical examination, and had we been content to let matters rest after the subsidence of the acute infection for which she entered and

disregarded the dictum of Joslin that all persistently obese subjects are potential diabetics we would have lost much, which, in this case, has been invaluable to us.

Bronzing of the skin (diabete bronze) occurs in certain cases in which diabetes arises as a late event in the disease known as hemochromatosis, which is a disorder of metabolism characterized by a deposition of an iron-containing pigment—hemosiderin—in the glandular organs, and by an increase in the normal pigmentation with which is associated a progressive sclerosis of various organs, and, in a large proportion of the cases, diabetes. Hemosiderin, a non-iron-reacting pigment which has a yellow tint, is found in the connective tissue cells.

The disease was first described by Von Recklinghausen. Osler describes two groups of cases, the larger one in which diabetes is present, and the smaller in which there is no glycosuria. The case in hand does not agree with this grouping because there was no evidence of hemochromatosis at necropsy. So far as the writer has been able to determine, there is no similar case on record. It stands in a class by itself, unexplainable by anything in the literature today.

#### **THE ROLE OF THE ANTRUM OF HIGH-MORE AS A FOCUS OF INFECTION.\***

Louis C. Rouglin, M. D.

Atlanta, Ga.

The importance of the antrum of Highmore associated with infections of the other nasal sinuses, or as a primary source of infection due to dental caries, or to acute and chronic inflammations is well recognized, yet I could find but very little in the medical literature calling attention to the possibility of its role as a focus in latent infections, and as such, in my opinion, it is very frequently, though quite unjustly, either totally ignored or overlooked. A brief review of the anatomy (surgical) of this cavity will very clearly demonstrate the logic, possibility and role of the antrum in latent infections.

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



In the adult it consists of a large pyramidal sinus, the inner wall of the antrum corresponding to the outer wall of the nasal cavity forming its base. It is composed of bone varying in thickness from one-eighth of an inch at the floor to that of a sheet of paper above, and mucous membrane without any bony support at its upper third.

The outer extremity of the malar bone forms its apex, and the alveolar process of the superior maxilla forms the floor which is sometimes on the same level with the floor of the nasal cavity, but usually is either above or more often below it. The roots of the teeth occasionally penetrate it, the second bicuspid and first molar are in closest proximity to it, and in proportion to the increased size of the antrum an additional number of teeth come into intimate relation with it. Infection there occurs by direct continuity from dental caries secondary to extraction of teeth, though not infrequently dental infection occurs secondary to maxillary sinusitis. As a rule, the floor has numerous bony septa or spurs dividing it in pockets, an ideal space serving as a focus of infection. The floor of the orbit forms its roof. It is normally composed of a thin lamina of bone with its covering of mucous membrane, but in older people the bone is often absorbed in places, the mucous membrane alone remaining brings the contents of the orbit and the antrum in close contact—an anatomical condition that must be kept in mind, especially when puncturing the antrum in elderly people. The outer wall of the antrum is formed by the anterior or facial surface of the superior maxilla and the zygomatic surface of the superior maxilla forms its inner wall.

The cavity varies in size in different individuals. It is usually larger in males than females. Even in the same individual the two sides may vary in size and in interior arrangement. Often a complete septum of bone will wall off a separate chamber and practically form two antra on the same side. This condition is not readily determined by trans-illumination. Un-

der such circumstance the x-ray is of utmost importance and value.

The natural opening of the antrum, the ostium, is situated just behind the uncinate process and empties into the hiatus semilunaris and thence into the middle meatus of the nose over which hangs the middle turbinate body. In a large per cent of cases a second opening or ostium may be found which opens below the other or just behind the bulla ethmoidalis.

The openings being high with the body in the erect position secretions cannot gravitate into the nasal cavity unless the antrum is entirely filled or overflowing. Therefore when this sinus alone is involved inspection of the nasal cavity will not show any pathological process or discharge. When the amount of secretion is very small and thick it cannot be determined even by change of posture as it can be readily determined when the secretion is abundant and thin.

The cavity is lined with ciliated epithelium which drains its contents into the direction of the ostium. Its blood supply is derived from the vessels of the nasal mucosa, which pass through the maxillary ostium and from some collateral branches of the vessels of the lateral wall which pass through the bone to the inner antral wall. The veins are connected with those of the naso-pharynx, eye, and dura. The nerve supply is derived from a branch of the inferior orbital nerve. These show its intimate relationship with the neighboring organs and account for the reflex and remote symptoms that occur as a result of infection in the antrum.

#### Case Records.

Dr. B. W. Dentist, had acute empyema due to dental caries, was treated by a dentist, had a tooth extracted and an opening made into the antrum. It was drained, but no relief was obtained, either from pain or tenderness. His temperature went to 102. Patient had chilly sensations, and constant pain. On penetrating the antrum with my canula a small amount of pus and mucous was washed out. Temperature dropped to normal and all physical symp-

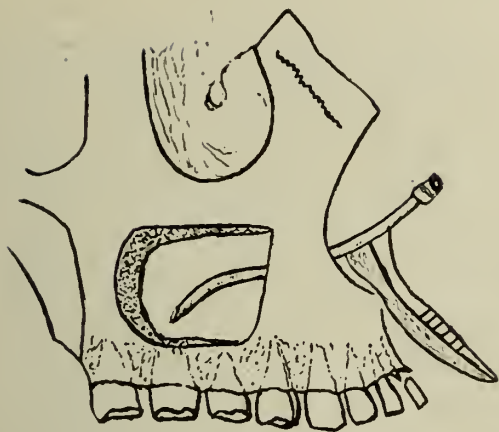


Fig. 1.—Maxillary wall removed showing antrum trocar in sinus.

toms disappeared immediately. A second irrigation on the following day was all that was required for a complete cure.

Mrs. A. B., age 34, complained of severe headache, especially in the occipital region, worse at night. She was often awakened from sleep on account of it and also noticed that her vision had become diminished. She lost some flesh, felt irritable and sluggish on account of pain and loss of sleep. Examination of nares showed slight congestion of both middle turbinate bodies, a moderately deviated septum. Otherwise the findings were negative. Transillumination was negative. Vision of right eye 20-60, left eye 20-100. Throat negative. On account of tenderness over the maxillary region an exploratory puncture and irrigation of the antrum was decided upon. A good deal of thick mucous and an unusual amount of clotted blood was washed out. Patient felt immediate relief and said she slept better that night than she had in previous months. Four subsequent irrigations completed the cure and incidentally her vision became normal in both eyes.

Mrs. I. B., age 36, had recurrent attacks of facial erysipelas, for the past six months. This condition would last from ten days to two weeks. Temperature would reach as high as 103 or more. In his last attack he became delirious and his condition became so serious that his physician had grave doubts as to his recovery. Dr. Sinkoe referred the patient to me. On examination nasal mucosa was congested

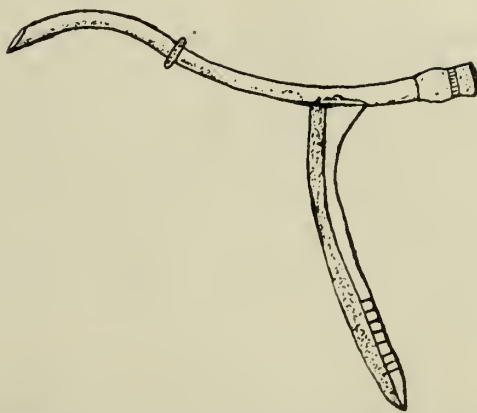


Fig. 2.—Dr. Rouglin's antrum trocar for diagnosis and treatment. (Made by Taylor-Camp Instrument Co.)

with hypertrophy of the turbinates. His septum markedly deviated. No secretion of pus or mucous from the sinuses was evident. On trans-illumination faint shadows were seen over both antra. Following a few preliminary treatments of the nose, the antra were irrigated. A good deal of pus was obtained on first and second irrigation. On third irrigation the fluid returned clear. Patient has had no subsequent attacks of erysipelas and has apparently made a complete recovery.

Mrs. S. F., age 42, complained of frequent colds and almost constant headaches. An error of refraction had been corrected by proper glasses and she had received the usual local treatments, vaccines, etc., with no relief. X-ray examination and transillumination of sinuses were negative. Urinalysis and general physical examination negative. On tapping the upper teeth with tongue depressor on right side there appeared to be some tenderness and an exploratory irrigation of this antrum was decided upon. The fluid returned clear. The patient, however, claimed to have received relief as a result of this treatment and two more irrigations were given with complete relief from headache and no cold for the past three months, an unusual length of time for this patient.

For the purpose of irrigation and puncture I have devised a canula, made for me by Taylor and Camp, which I think is of distinct advantage over those now generally used for this purpose. The handle being to one side allows a much better inspection of the return flow and the curve



fitting between the thumb and forefinger gives the operator better control of the instrument. The hand acts as a fulcrum so it is not necessary to press the instrument against the septum when slight pressure is required to enter the cavity. The opening is sufficient to meet the ordinary requirements and it is seldom necessary to use any local anesthesia in subsequent irrigations.

The solution I use is first an irrigation of normal saline followed by an irrigation of iodine and carbolic acid solution which has the advantage of being both antiseptic and slightly anesthetic.

In conclusion I wish to emphasize (1) the necessity of giving more careful consideration to the antrum of Highmore as a possible focus of infection in latent and obscure cases, (2) the operation of opening this cavity when done by a man skilled and thoroughly acquainted with the surgical construction of the cavity is comparatively simple and safe, and (3) in obscure cases, the operation is justified for diagnostic purpose as well as for treatment.

65 Forrest Avenue.

#### DISCUSSION OF DR. ROUGLIN'S PAPER.

Dr. Murdock Eguen, Atlanta:

There is one point that I want to emphasize. When an antrum puncture is done and you get pus, it does not always mean that you have an infected antrum. On account of its anatomic position, below the other sinuses, it frequently acts as a reservoir for the sinuses higher up. So I think you should first eliminate the ethmoid, sphenoid, and frontal sinuses before you make a diagnosis of antrum infection.

You will get less reaction if you use a saline irrigation than if you use an antiseptic solution.

Often we do what we speak of as a diagnostic puncture—that is, when we are not absolutely sure of x-ray findings or physical diagnosis, we puncture the antrum. I use a straight needle and insert it under the anterior third of the middle turbinate, so that if pus comes out I know it comes from the antrum.

Dr. Herschel C. Crawford:

I want to mention a point in the matter of diagnosis of these cases. Frequently I have seen cases in which the x-ray findings and trans-illumination were entirely negative. Frequently there is a tenderness over the antrum and upon making a puncture you get a mucopurulent secretion, which shows that you cannot be positive. In all doubtful cases you are justified in making a puncture for the purpose of diagnosis.

As to irrigation, I think that in the past it has been customary to irrigate through the root socket, after removing the tooth. That procedure has disadvantages, because there may be a permanent fistula which is difficult to close, and I think that in every case we should irrigate through the antrum.

Dr. Rouglin, closing the discussion:

I appreciate the discussion. Owing to the limited time, I omitted the anatomical part of my paper; in consequence, some of the features discussed, although included and dealt with in my paper, were omitted.

As to the part of the antrum in general sinusitis, I distinctly stated that under such circumstances, the antrum should not be considered as an entity, but treated and dealt with as part of the general sinusitis.

I agree with Dr. Crawford that trans-illumination and x-ray findings are not always reliable guides, and to puncture and irrigate for diagnostic purposes is a justifiable procedure.

Ordinarily I use only the normal saline for irrigation; however, when pus is found I use an iodine-carbolic solution, (iodine sufficient to perceptibly color the water, carbolic acid just sufficient to decolorize the iodine). I find same to be ideal for the purpose. I have seen it used extensively on a large number of patients for a long time, without any untoward results in a single case. In addition to its antiseptic and germicidal properties, this solution is also slightly anesthetic, and I am sure you will find it an entirely safe and satisfactory solution for use in these cases.

#### A SIMPLE TECHNIQUE FOR REMOVING THE APPENDIX.

E. D. Highsmith, M. D.,

Associate in Surgery—Emory University.

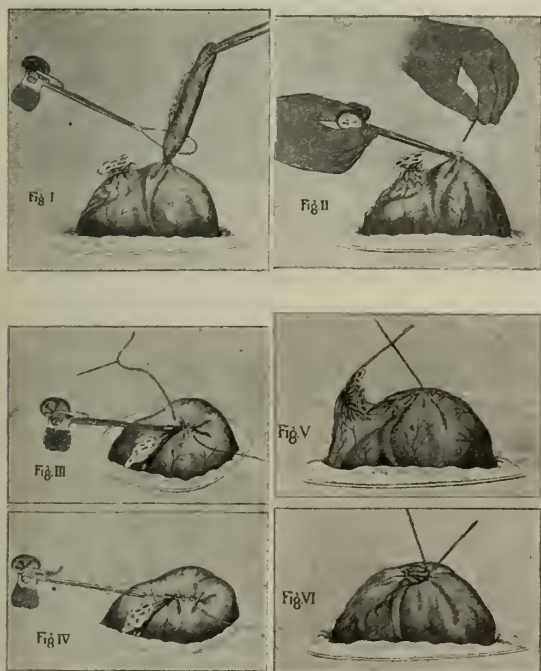
Visiting Surgeon—Wesley Memorial Hospital.  
Atlanta, Georgia.

Ordinarily, surgery of the appendix is a comparatively simple procedure, though occasionally we meet with difficulties, especially where, on account of old adhesions, it cannot well be delivered, or on account of poor assistance we have trouble with the purse-string suture. As time is an important factor, I shall describe a simple technique, and an instrument which greatly facilitates the removal of the difficult as well as the simple cases. I shall not describe the different incisions or methods of finding the appendix, but a new method of removing the appendix, and invaginating the stump.

After the meso-appendix has been tied and freed, the appendix is crushed just above the base with a Ferguson forceps and tied with a 000 plain cat-gut. Then the Loop-Clamp (which may be of silk-worm-gut or plain cat-gut) is slipped down over the appendix to the crushed portion, as shown in Figure 1, and by the aid of the ratchet is tightened down over the

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.

crushed area, and is held with the left hand while it is cut away with the right. As this instrument holds the stump of the appendix firmly, as shown in Figure 2, you need very little assistance. After the appendix has been cut away the end of the Loop-Clamp holding the stump is slightly pressed down in the caecum, as shown in Figure 3, and tucked in with a Lembert suture for about three centimeters, after which the loop is cut as shown in Figure 4. In case silkworm-gut is used, cut both strands at bridge of instrument and, as the material is very smooth, it can be easily slipped out. If cat-gut is used, cut close and let it remain to be absorbed. Then



bring the stump of the meso-appendix over the sutured area, as shown in Figure 5, and tack down as shown in Figure 6.

One of the advantages of the Loop-Clamp is that it holds the caecum up firmly without being traumatized with the gloved hand. In case the appendix cannot be delivered from the abdomen by the aid of this instrument, the appendix can be removed and the stump treated almost as conveniently as the ordinary case. This method eliminates the purse-string suture, and saves time and the need of assistance.

## THE X-RAY AND CLINICAL FINDINGS IN THE NORMAL CHEST OF THE CHILD.

(Report of the X-Ray Division of the Committee on Medical Research of the National Tuberculosis Association.)

It is generally conceded that one of the most important factors in accurate interpretation of the appearance of morbid processes in the roentgenogram of the thorax is a thorough familiarity with the normal and variations therefrom within normal limits. With a full realization of this in view the National Tuberculosis Association in 1920 appointed a committee comprising three roentgenologists and three internists to make a study of the normal chest of the child between the ages of six and ten years. This group was instructed to work in co-operation and to make a report of their investigations before the association when their studies were completed and their conclusions reached. The members selected for the committee were Dr. H. Kennon Dunham of Cincinnati; Dr. Frederick H. Baetjer, of Baltimore, and Dr. Henry K. Pancoast, of Philadelphia, to act in the capacity of roentgenologists and to work in co-operation with the respective internists in the same cities, Dr. Kenneth Blackfan, Dr. Charles R. Austrian and Dr. H. R. M. Landis. Each group of two was to work independently until a satisfactory number of individuals were examined and the entire committee was then to meet and draw their conclusions for presentation. It was to be the duty of the internist in each group by careful clinical study to select as nearly normal children as possible for examination by the roentgenologist. The entire procedure was to be carried out with strict co-operation between the two members of each group.

It was soon realized by the x-ray members of the groups that an attempt to describe a normal chest was practically impossible. Their endeavors soon began to center around the description of a theoretical normal with wide variations that would serve as a basis for the interpretation of abnormal appearances and tend to



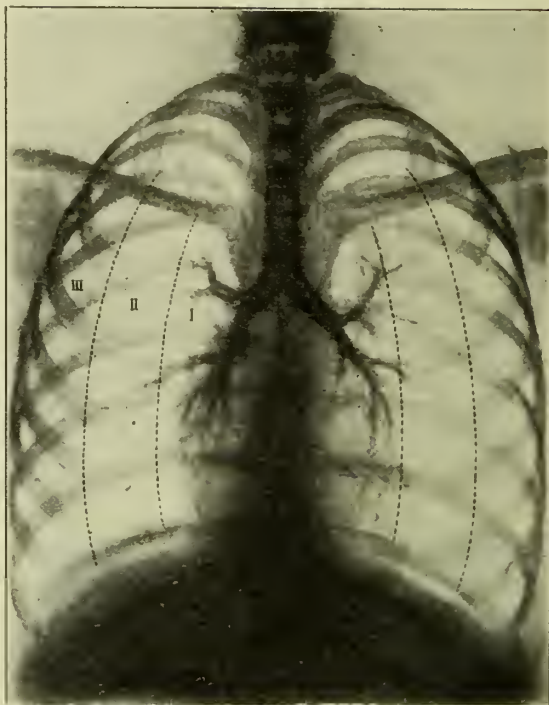
preclude the possibility of erroneous diagnosis being based upon faulty interpretations of hilum shadows, trunk shadows and linear markings more or less altered in appearance by the frequent respiratory infections of children. They realized that herein had existed the greatest source of error in interpretation, and no doubt the association had this same thought in mind when the committee was appointed to take up these investigations. Errors in interpretation have been made chiefly in connection with the diagnosis of pulmonary tuberculosis.

It was the consensus of opinion that children are probably more apt to show definite x-ray evidences in the hilum and trunk shadows of simple as well as serious respiratory infections than adults. Practically all children of the ages of those examined have had at one time or another one or more respiratory infections, especially measles and whooping cough, that are likely to produce very apparent changes in the shadows mentioned and which will remain distinctly visible for a variable period of time. These apparent deviations from the normal are not necessarily abnormal when observed, but may be the harmless results of one or more infections. No doubt such appearances have many times been misinterpreted as evidences of tuberculosis. In the conclusions reached by the committee the attempt has been made to preclude this possibility.

Many of the general observations made have not been included in the conclusions. One of those perhaps worth mentioning is the fact that the heart of the child is found to extend relatively further to the right, than in the adult.

The thoroughness with which the studies were carried out may be in part realized from the number of individuals examined. Over five hundred children were selected from all strata of life, as stated in the clinical report of the committee.

The groups comprising the committee met at the Phipps Institute, Philadelphia, March 3, 1922. Prior to this meeting



Diagrammatic reproduction of several roentgenograms, showing the three zones.

there were misgivings as to the possibility of an agreement upon any very definite conclusions, but much to the satisfaction of all the members a definite agreement was reached and the conclusions were completed after a few hours' careful deliberation.

To assist in a better understanding of the conclusions of the committee, a composite diagrammatic reproduction of several roentgenograms was made and is shown in the accompanying illustration. It must be remembered that the three zones like the chest have thickness as well as length and breadth. Thus the zones extend anteriorly and posteriorly from the lung root as well as laterally.

#### Conclusions of the X-Ray Division of the Committee.

**The Normal Chest.** The normal chest of the child from the roentgenologic standpoint is subject to such wide variations within normal limits as to be beyond the possibility of exact description.

**Hilum Shadow.** The conglomerate shadow commonly called the hilum shadow, when found lying entirely within the in-

ner third or zone of the lung area can be disregarded (or regarded as normal), except where it is made up of a solid mass of homogeneous shadow giving undoubted evidence that it represents a growth or mediastinal pleurisy.

**Calcified Nodes.** Calcified nodes at the root of the lung, without evidence of lung disease, are of no significance except as a possible evidence of some inflammatory condition, possibly, but not necessarily, tuberculous. They are a common finding in normal chests.

**Density and Thickness of Trunk Shadows.** In the normal lung the bronchial trunk shadows are not visible in the extreme apical regions. For convenience of description the remainder of the lung is divided into three vertical zones, extending outward from the lateral border of the spinal shadow to the lateral chest border.

The inner zone contains the root shadows.

The mid zone contains the trunk shadows, gradually fading out into their final subdivisions.

The peripheral zone contains radiating lines from these and fading off before the periphery is reached.

Where in the mid zone or peripheral zone, these shadows do not disappear in the characteristic fashion described, the appearance may be evidence of a variety of conditions, past or present, of an inflammatory nature or otherwise. It may accompany a tuberculous process but is not necessarily indicative of tuberculosis.

**Improper or Misleading Terms.** The use of the terms "peribronchial tuberculosis" and "parenchyma tuberculosis" is not to be recommended in the interpretation of roentgenograms of the chest. Until corroborated by laboratory or clinical findings, the use of the terms "active" and "quiescent" should not be definitely applied to evident lesions demonstrated on plates.

(Signed)

HENRY K. PANCOAST,  
KENNON DUNHAM,  
F. H. BAETJER.

## BOOK REVIEW

### HUGHES' PRACTICE OF MEDICINE

Twelfth edition, enlarged, revised, illustrated. Octavo. xxiv plus 810 pages. Cloth, \$4.00.

Revised by R. J. E. Scott, M. A., B. C. L., M. D. (New York), Fellow of the New York Academy of Medicine, etc.

A complete, modern practice of medicine with additional sections of Mental Diseases and Diseases of the Skin. It is compact, concise and most serviceable. It fits easily in your traveling case, instrument bag, pocket of the automobile, desk drawer, etc. It gives in quickly available form, the synonyms, definitions, causes, pathological anatomy, symptoms; diagnosis, prognosis, treatment, prescriptions, etc. In the preparation of this edition such changes and additions have been made as the progressive development of medical science required. The general arrangement of the first part of the book has been materially modified. The specific infectious diseases are subdivided into four groups; diseases due to bacteria; due to protozoa; due to metazoa; diseases of unknown etiology. This accords with modern views on pathology and etiology. Several new sections have been added such as those on Trench Fever; Notifiable Diseases; Poisoning by Wood Alcohol; Acidosis; Functional Activity of the Kidneys; Coleman's Diet for Gastric Ulcer; von Jacksch's Anemia; Leukanemia; Disorders of the Salivary Glands; Sinus Irregularity; Premature Contractions of the Heart; Classification and Treatment of Mental Diseases. Numerous lesser additions and alterations, tests, etc., have been made.

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**THE JOURNAL**

OF THE

MEDICAL ASSOCIATION OF GEORGIA

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SEPTEMBER, 1922

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Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****THE GORGAS MEMORIAL FUND**

At the St. Louis Annual Session the Board of Trustees reported to the House of Delegates that in response to a request received from the directors of the Gorgas Memorial Institute of Tropical and Preventive Medicine for the co-operation of the American Medical Association, the Board had taken action which resulted in the appointment of a committee, representing the American Medical Association, to act on the project. The following were appointed: Dr. George E. de Schweinitz, Philadelphia; Dr. Charles W. Richardson, Washington, D. C., and Dr. Fred B. Lund, Boston.

The House of Delegates unqualifiedly indorsed the Gorgas Memorial as a tribute

to a past President of the organization and one of its most distinguished and loved members. At its recent meeting the Executive Committee of the Board of Trustees received the following statement from the committee and directed its publication:

**Statement and Appeal for Co-operation**

As a result of the stimulating suggestion of President Porras of Panama, it has been resolved that a fitting memorial shall mark the humanitarian service of the late Major General William C. Gorgas, and the beneficent influence of his life and work on mankind throughout the world. Following the thought of President Porras, it has further been decided that this memorial shall take the form of a scientific institute for the study of tropical diseases and of preventive medicine.

No better place could have been selected than Panama City, the gateway between the Atlantic and the Pacific, where General Gorgas' well-planned and executed work made possible the building of the Panama Canal.

It is hardly necessary to call the attention of the medical profession to the far-reaching effects of General Gorgas' work on the welfare of the people of the whole world, especially in tropical and semi-tropical climates, and in all places subject to the inroads of infectious disease.

We of the medical profession remember him as our Surgeon General during the early part of the World War. We remember his prompt recognition of the necessity of bringing into active service large numbers of physicians and surgeons from civilian life. We remember his genial and kindly nature, his high character, and his steadfast effort directed toward the organization and equipment of the Medical Corps of the Army. We remember the patriotic response. We remember him as a great sanitary officer, to whom we wish to pay a lasting tribute.

A central committee has been formed, with Admiral Braisted, retired, ex-President of the American Medical Association, as its president. The American Medical Association has appointed a committee of

three to work in accord with the central committee, and through its members this appeal is made to the American medical profession.

The plan is to build at Panama an institute for the study of tropical and infectious diseases, with a hospital, laboratories, departments for research and all other facilities required in an institute of this character, erected and administered according to the most progressive, modern ideals. The Panamanian government, owing to the far-sighted, philanthropic vision of President Porras, has donated the great Santo Tomas Hospital, and also the ground on which it is proposed immediately to construct the buildings as they have been described. Dr. Strong has been appointed the scientific director.

In conjunction with this work in Panama, there will be established in Tuscaloosa, Ala., the Gorgas School of Sanitation for the purpose of training country health workers, sanitary engineers and public health nurses, especially educated to deal with the problems peculiar to the Southern states.

An endowment of six and one-half million dollars will be required to enable the institute to carry on the work according to the plans which have been formed.

The Republic of Panama has demonstrated its sympathetic and practical interest in this enterprise with splendid liberality. The physicians of our country, and especially the members of the American Medical Association, surely will not disregard the memory of a former President, and will seize the opportunity to make in this respect a contribution of which they will be proud.

The campaign for funds is to be international. A large response is expected from North, Central and South America, since the nations of these countries have been the chief beneficiaries of the labors of General Gorgas. It is fitting that his co-workers of the American medical profession should be requested to respond generously to this appeal. It is hoped that every member of the American Medical Association

will make as liberal a subscription as possible. Any sum will be gratefully received. Checks should be drawn to the order of the "Gorgas Fund," and should be mailed to the American Medical Association, 535 North Dearborn Street, Chicago.

CHARLES W. RICHARDSON,  
Washington, D. C.  
F. B. LUND, Boston.  
G. E. DE SCHWEINITZ,  
Philadelphia.

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### SIMPLE GOITER--A PREVENTABLE DISEASE.

The results of the elaborate investigations in this country by Marine and his collaborators, details of which have repeatedly been reported in *The Journal*, have led him to state that "simple goiter is the easiest of all known diseases to prevent." Similarly McCarrison, speaking on the basis of a long experience in both Great Britain and India, has lately remarked that our knowledge of the causes of simple goiter "is now sufficiently definite to enable us to prevent and cure this condition. It is pre-eminently one which need not exist in this country (England) if such knowledge of its causation and of its prevention as we already possess be but applied."

Such unqualified announcements constitute a challenge to the medical profession, and a mandate to preventive hygiene in which the public may have a vital interest. The problem is by no means one of minor consequence from a national standpoint. The estimate of the Goiter Commission of France in 1874, indicating the existence of 500,000 goitrous persons and 120,000 cretins and cretinoid idiots in that country, or, again, Kocher's statistics showing 80 per cent or more of the school children in Berne to be goitrous, may seem to us in the United States and in 1922 as the ancient history of far-away regions. When we are assured by the rapidly accumulating data that thousands of our American youth show the endemic



incidence of simple goiter, the seriousness of the situation is "brought home." Thus from Camp Lewis, Washington, Kerr reported the examination of 21,182 recruits, with the finding of 1,276 large or well formed goiters. Hence Kimball, who has reviewed many of the authentic records, frankly concludes that goiter may be considered as distinctly endemic in certain sections of the United States. Furthermore, it is not irrelevant from an economic standpoint to note that domestic animals are also the victims of thyroid disorder.

Science is now prepared to contribute certain precise and well established information in respect to the thyroid structures. Iodin is essential for their normal function. As soon as the store or supply of this element decreases markedly, active hypertrophic and hyperplastic changes occur in the thyroid. They are therefore due to a deficiency of iodine, and these anatomic changes do not occur when the iodine store of the glands is maintained. Simple goiter is thus the expression of a deficiency, and prophylaxis consists in prevention of the deficiency. The elaborate clinical experiments on school children at Akron and elsewhere, the details of which have lately been summarized by Kimball, have furnished conclusive evidence of the effectiveness of assuring the intake and absorption of a few milligrams of iodine each day in the regions where the deficiencies somehow arise. The experience of Klinger, in Switzerland, is eminently confirmatory, and it now seems likely that the plan of goiter prevention will become a public health measure in "the most noted endemic goiter nation in the world." McCarrison, who has long been a champion of the importance of gastro-intestinal infection as a goiter-producing influence, does not hesitate to stress the significance of iodine. Thus, in an attempt to reconcile conflicting views, he has asserted that "the factors which give rise to goiter center round the supply of iodine and the needs of the thyroid gland for iodine."

"Now this supply of iodine," says McCarrison, "is dependent on a multiplicity of factors, both extrinsic and intrinsic, to the

body. It is dependent on the iodine content of the food and water; and this in its turn is dependent on altitude, distance from the sea-coast, and the iodine content of the soil from which both vegetable foods and water derive their iodine supply. Again, the supply of iodine to the thyroid gland, and of the gland's iodine-containing secretion to the body cells, is dependent upon the adequate absorption and assimilation of iodine; this, in its turn, is influenced by factors such as disordered function of the gastro-intestinal tract and bacterial intervention in the digestive tube, both of which may interfere with the adequate absorption and assimilation of iodine. On the other hand, the needs of the thyroid for iodine are dependent on the needs of the body cells for the active iodine-containing principle of the gland, and these in their turn are dependent upon a multiplicity of factors, such as food balance (excess of fats, for example, increasing these needs), metabolic variations, age, sex, puberty, sexual activity, pregnancy, menstruation, infections, and season. There is further to be considered the capacity of the thyroid gland to utilize iodine and efficiently to manufacture its hormone; here are involved such factors as heredity and excessive stimulation of the gland, which may be induced by nervous, toxic or infectious influences, and impairment of its function, which may be induced by hereditary influences or by toxic or microbic agents, the two last being frequently of gastro-intestinal origin."

The remote cause of goiter and the local factors which in ultimate analysis distinguish physiologic life in goitrous and non-goitrous districts frankly remain to be elucidated. Nevertheless, as Kimball concludes, the same imagination which developed the practical application of the principle of the prevention of goiter can now see, a few generations hence, the closing of the chapters on endemic goiter and cretinism in every civilized nation in the world. What are we doing to facilitate this fortunate outcome?—*Jour. A. M.*, June 3, 1922.

**DR. LEE BEN CLARKE DIES OF  
APOPLEXY.**

Dr. Lee Ben Clarke, one of the best known doctors in Atlanta, died at the residence, 629 N. Boulevard, at 11:25 o'clock, August 23, following a stroke of apoplexy five weeks ago.

Dr. Clarke was born in Blenheim, New Zealand, March 25, 1868, but came to this country when he was two years of age. His parents, Morris and Elizabeth Lee Clarke, of Sidney, New South Wales, Australia, settled at Marion, S. C.

At thirteen years of age he had finished school and was awarded a teacher's certificate. In a few years he moved to Charleston, where he took a course in pharmacy and was a registered pharmacist when 18 years old.

While following the pharmaceutical profession he attended the Charleston School of Medicine, and upon being graduated from that institution, moved to this city, where he became one of the most prominent and beloved doctors in Atlanta. Endowed with a special gift of understanding children, for the past 15 years he devoted his time exclusively to the diseases of infants and children. In this line he was most successful and many honors were bestowed upon him.

**Honored by Doctors.**

Dr. Clark was ex-president of the Ful-

ton County Medical Society and in January of this year was awarded a certificate of honor for 25 years' continuous service in the society. He was vice-president of the Medical Association of Georgia in 1911. For years he served as professor of pediatrics at Emory University and held the same chair in the Atlanta Post-Graduate School of Medicine. One of the founders of the Georgia Pediatric Society, he had served as president. He was a member of the staffs of Grady, Wesley and Georgia Baptist hospitals. In 1921 he was made a fellow in the American College of Physicians and a member of the American Congress of Internal Medicine.

He was active in lodge work and was grand master of I. O. O. F. of Georgia, Schiller Lodge; past chancellor K. of P., and Comanche Tribe No. 6, Red Men. A conscientious member of the temple he occupied a place on the board of trustees of the Hebrew Benevolent Congregation and B'nai-B'rith.

The deceased is survived by his widow, Rosa Goldberg Clarke; a son, Maurice L. Clarke; five brothers, Sol and Lemuel, of this city; Morris, of Shreveport, La.; J. Louis and Albert, of Memphis, Tenn., and three sisters, Misses Gertrude, Hannah and Elizabeth Clarke, of New York.

The last rites were conducted by his friend, Dr. David Marx, August 25, 1922.



## DISPENSARY SERVICE IN THE UNITED STATES.

We publish this week statistics based on an extensive survey of the dispensaries, outpatient departments, clinics and other medical institutions having to do with the care and treatment of ambulatory patients. The figures are based on reports received from the superintendents, medical directors or other executives of the dispensaries or in connection with governmental dispensaries from the municipal, state or national officers of these institutions. The figures, therefore, were obtained from official sources and are reliable. Our acknowledgments are due to all who have co-operated toward the success of the survey. Valuable assistance was received from the officers of national health agencies, hospital associations and voluntary medical organizations having to do with ambulatory patients. Hearty co-operation was received also from several of the state hospital committees.

### Number of Dispensaries in the United States.

Information is published in regard to 3,243 institutions from which reports were received and which are known to exist. Statements from reliable sources indicate that there are several hundred others for many of which the names have been obtained, but from which repeated requests have failed to bring reports which would enable us to include them in our published lists. Even as we go to press reports from other institutions continue to come in; a conservative estimate indicates that the total number of dispensaries in the United States will exceed 4,000. Satisfactory information has not been obtainable from many institutions for the reason that clinic and office record systems are lacking.

Of the 3,243 dispensaries listed, 946 are outpatient departments of hospitals or independent dispensaries which provide general medical and surgical service for their patients, while 2,297 are special dispensaries, such as those for tuberculosis and venereal diseases; mental hygiene and baby and child hygiene clinics; dispensaries

of eye, ear, nose and throat and orthopedic hospitals; dispensaries connected with industrial plants, and offices and stations of the United States Public Health Service.

### Dispensaries Providing General Care for Their Patients.

Statistics published this week deal mainly with the more important group of outpatient departments, or those which provide for the general, medical and surgical care of patients. There are 946 of these institutions, including 689 outpatient departments of general hospitals and 257 independent dispensaries. A list of these institutions is published in which are given the name and address of each dispensary and its location, the total number of patients cared for during the last fiscal year, and the number of visits made by those patients during that time. Similar information regarding special dispensaries such as those for tuberculosis, venereal disease and mental hygiene, is being prepared for publication in the near future and the full report of the survey is to be made available in pamphlet form.

### General Dispensaries by States.

One of the tables published gives the distribution of general dispensaries by states. Of the 946, New York State has the largest supply, 163, followed by Pennsylvania with 136, Massachusetts with 74, California with 56, and Illinois with 48. In regard to the numbers of patients cared for, New York naturally leads with 1,182,818, followed by Pennsylvania with 537,438; Massachusetts with 268,775; California with 193,920, and Illinois with 169,872. Of the 3,872,345 patients attending the general dispensaries, 2,717,850, or 70 per cent, attended dispensaries in the fifty largest cities. In New York, of the 1,182,818 dispensary patients, 958,622, or 81 per cent, are in New York City.

### General Dispensaries in the Fifty Largest Cities.

Table 3 of the statistics shows that, of the 946 general dispensaries, 416 or 44 per cent, are located in the fifty largest cities. New York leads, with sixty-nine, followed by Philadelphia with fifty-four,

Chicago with thirty-three, Boston with twenty-seven, and Baltimore with twenty-two. As to the number of patients cared for, New York leads with 958,622, followed by Philadelphia with 356,680; Boston, with 189,692; Chicago, with 159,493, and Baltimore with 109,387. Reports from the dispensaries of Seattle and Indianapolis do not give the total number of patients treated during the year.

#### **Service Rendered by General Dispensaries.**

The importance of general dispensaries to the public is indicated by the fact brought out in the statistics that these 946 institutions handled 3,872,345 patients during the year who, during that time, made 11,798,887 visits. Including a reasonable estimate for the seventy-five general dispensaries known to exist, but from which reports are not received, these figures would be increased to 4,500,000 patients and 13,500,000 visits.

#### **Service Rendered by Special Dispensaries.**

Reports received from special dispensaries show that although on the average they cared for smaller numbers of patients, at the same time the patients, as a rule, made larger numbers of visits. An estimate for the 2,297, based on definite reports which were received from the majority, indicates that these institutions cared for a total of 3,750,000 during the year who, during that time, made approximately 16,000,000 visits.

The total number of patients in all dispensaries during the year, therefore, was approximately 8,000,000 who, during the same time, made approximately 29,500,000 visits to those institutions.

#### **Dispensary Problems.**

One of the live problems relating to dispensaries is the abuse of such service by patients who are able to employ physicians. Investigation indicates that this abuse is not so extensive as has been supposed. The problem is being solved by a careful investigation of the financial status of the patients, which is being done by many dispensaries through a co-operation with bureaus of charity which keep a register of

the financial status of those seeking financial assistance.

Another problem is the establishment of a schedule of fees for the various services rendered by the dispensary and varying in accordance with the extent of the services rendered. A large number of dispensaries have already established such schedules, but there is no uniformity among dispensaries in the fixing of such charges. There is, also, an evident lack of justice to the patient and of economy to the dispensary in the disproportionate charges for different services in the same dispensary, such, for example, as a charge of ten dollars for roentgen-ray examination, with no charge for a Wassermann test. The next few years will doubtless see much progress in regard to the fixing of reasonable fees so that a larger proportion of the expense of conducting the dispensary can be borne by the patients.

Another problem which in recent years has been given extensive discussion is that of the pay clinics. The object of such clinics is to enable patients who cannot afford to pay the fees charged by physicians to secure satisfactory medical and surgical service at lower rates. Such clinics will be instruments of great good if they accept only such patients as are referred to them by physicians or who are found, on investigation, to be unable to pay full fees. In this way the pay clinic will work in co-operation, and not in competition, with the medical profession.

#### **Growth in Number of Dispensaries.**

The first dispensary on record<sup>1</sup> was established in London, England, in 1696, to provide medical care for the poor. The first established in the United States was in Philadelphia, in 1786; the second, in New York, in 1790, and the third in Boston, in 1796. We find no record of any survey of dispensaries having been made until that by the United States Census Bureau in 1910; at that time there were only 574, including both general and special dispensaries. An estimate in 1916 placed the number at 900.<sup>1</sup> The present survey gives definite information in regard to the exist-



ence of 3,243 dispensaries, not including several hundred others in regard to which there appears to be authoritative evidence regarding their existence, but from which thus far it has been impossible to obtain reports. Including the latter, the total would be more than 4,000.

The increase in population in the country has had some influence on the development of outpatient dispensaries, but the chief stimulus, especially in recent years, has been the increasing popularity of the dispensary as a place to secure satisfactory medical service. It has been during recent years also that dispensaries have established well-organized medical staffs and have required their prompt and regular attendance. In addition to this, there has been an increasing tendency toward the establishment of graduated scales of fees by which those who were unwilling to accept charity at the free dispensaries are more willing to patronize the institutions. Another influence leading to the increase in numbers is the recognition by hospitals of the importance of outpatient departments as a means of better serving the people in their communities. It is found that many hospital patients during convalescence can secure the necessary follow-up treatment as ambulatory patients of the outpatient departments.—*Jour. A. M. A.*, August 5, 1922.

#### PROPAGANDA FOR REFORM.

"Medical" Testimonials for Chiropractic.—Chiropractors affect, with "patent medicine" fakers, a fine disdain for scientific medicine and the medical practitioner. How readily, however, do both seize with avidity any statement made by an individual who may be presumed to have the right to put "M. D." after his name—provided that statement seems favorable to the cause or may be so twisted as to make the public believe that a reputable physician has spoken a good word either for chiropractic or nostrum industry.

For some time there has been going the rounds a chiropractic advertisement purporting to quote "Opinions of Well-Known

Medical Men" on chiropractic. The material obviously emanates from one of the chiropractic "ad" factories. These make a business of supplying the individual chiropractor with advertising copy that he, because of his educational deficiencies, would be unable to write for himself. According to these stock advertisements: ". . . there is an ever increasing number of M. D.s all over the United States and Canada who understand, appreciate and practice straight chiropractic to the exclusion of medicine and every other method as witness the following selected at random:" Then follow what purport to be quotations from physicians. An examination of the records of the individuals who are quoted permits an appraisal of their testimonials. (*Jour. A. M. A.*, July 1, 1922, p. 57).

#### NEWS ITEMS.

Utah State Medical Association held its twenty-eighth annual session at Salt Lake City, August 31st to September 2nd, 1922. In connection with a scientific program a post-graduate course in Clinical Diagnosis was given at the County Hospital, Salt Lake City.

#### Second District Medical Society.

Second District Medical Society held its semi-annual meeting at Moultrie, August 11th, 1922. A good scientific program was rendered. The attendance was large and enthusiastic. In addition to the usual order of the meeting, a most delightful entertainment was given, which is characteristic of Moultrie. The meeting was addressed by Dr. J. M. Smith, president of the Medical Association of Georgia.

The regular meeting dates were changed from February and August to the second Friday in March and September. The next meeting will be held in Albany.

#### Eighth District Medical Society.

Eighth District Medical Society held its annual meeting at Hartwell, Ga., August 9, 1922, at the Hartwell Courthouse. A large attendance was present and the visitors were delightfully entertained by the phy-

sicians and people of Hartwell. The honor guest of the meeting was Dr. J. M. Smith, of Valdosta, president of the Medical Association of Georgia. His address was along the line of Medical Organization and Public Policy. Other distinguished visitors from outside the district were Drs. Wilheit and Davis, Anderson, S. C., and Drs. E. C. Thrash, Arch Elkin, C. W. Roberts, T. F. Abercrombie and Theo. Toepel, of Atlanta. The following scientific program was rendered:

#### Scientific Papers.

Complete Transposition of Viscera: Report of two cases. Drs. Fullilove and Stewart, Athens.

Surgery of the Large Bowel for Benign and Malignant Diseases. Dr. Stewart D. Brown, Royston.

Roentgen Diagnosis of Gastric Ulcer and Gastric Carcinoma. Dr. Albert A. Rayle, Athens.

Gun-shot Wounds in General Practice, With Case Reports. Drs. Bell and Nicholson, Madison.

The Thyroid and Its Common Diseases. Dr. C. W. Roberts, Atlanta.

Some Observations of Surgical Kidneys (With Report of Cases and Exhibition of Specimens). Dr. J. P. Proctor, Athens.

Lord Lister and His Priceless Gift to Man. Dr. John A. Hunnicutt, Jr., Athens.

Diet in General Practice. Dr. W. D. Gholston, Danielsville.

Refractive Errors and Some of Their Symptoms. Dr. J. C. McKinney, Athens.

The Importance of Eliminating All Foci of Infection in Inflammatory Conditions of the Eye. Dr. W. H. Cabaniss, Athens.

Percussion of the Healthy Chest. Dr. B. C. Teasley, Hartwell.

Operability. Dr. A. B. Patton, Athens.

The following officers were elected for the coming year:

President, Dr. W. E. McCurry, Hartwell, Ga.

Vice President, Dr. W. H. Cabaniss, Athens, Ga.

Secretary-Treasurer, Dr. D. M. Carter, Madison, Ga.

The next meeting will be held at Ath-

ens, Ga., second Wednesday in August, 1923.

#### ANNOUNCEMENTS.

Dr. S. A. Kirkland announces the removal of his offices to the Doctors' Building, 436 Peachtree Street, Atlanta, Ga.  
Urology.

Dr. Edgar D. Shanks announces the removal of his offices to the Doctors' Building, 436 Peachtree Street, Atlanta, Ga.

Internal medicine and laboratory diagnosis.

Dr. W. Pope Baker announces change of offices from 820 Healey Building to Suite 3, 79 Forrest avenue, Atlanta, Ga.

#### COMMUNICATION.

August 3, 1922.

Dr. Allen H. Bunce,  
Atlanta, Ga.

Dear Bunce: My last issue of the Journal of the Medical Association of Georgia gave me the idea. In looking back over my files of the Journal I fail to find a single issue this year containing an ad from ———. His competitors have.

The majority of his business must come from the members of the association. In a sense I feel that the Journal is mine and I am going to patronize those who patronize my Journal.

For quite a number of years Mr. ——— has had the majority of my business and our relations have been pleasant, but unless he sees fit to utilize our pages I am going to give my business to one of his competitors who considers it worth while to advertise in the Journal.

See if you can't get one from him.

Yours truly,

FRANK NORMAN.

#### COMMUNICATION.

LaGrange, Ga., July 29, 1922.

Dr. Allen H. Bunce, Editor,  
Atlanta, Ga.

Dear Doctor Bunce:

The last issue of the Journal of the



Medical Association of Georgia is a credit to you and your associates. I wish here to congratulate you, Dr. Pruitt and Dr. McCurry on the marked improvement made in the Journal during this year. It is now a credit to the state and compares favorably with any of the state journals.

I wish you continued success in your professional and literary work.

Yours fraternally,

HENRY R. SLACK.

#### NEW AND NONOFFICIAL REMEDIES.

**Anti-Anthrax Serum**—P., D. & Co.—An antianthrax serum (see New and Nonofficial Remedies, 1922, p. 284) marketed in syringes containing 50Cc. Parke, Davis & Co., Detroit.

**Antimeningococcic Serum**—P., D. & Co.—An antimeningococcus serum (see New and Nonofficial Remedies, 1922, p. 286) marketed in packages of two syringes, each containing 15 Cc.; also in packages of one syringe containing 50 Cc. Parke, Davis & Co., Detroit.

**Diphtheria Toxin-Antitoxin Mixture**—P., D. & Co.—A diphtheria antitoxin-toxin mixture (see New and Nonofficial Remedies, 1922, p. 282). Each cubic centimeter represents a single human dose. It is marketed in packages of three bulbs representing one immunizing treatment also in vials containing 20 Cc. Parke, Davis & Co., Detroit.

**Tuberculin B. F. (Bovine)**—P., D. & Co.—A preparation of tuberculin Denys (see New and Nonofficial Remedies, 1922, p. 286). It is made in the same manner as tuberculin Denys (Human), except that the bovine type of tubercle bacillus is used. It is marketed in packages of six 1 cubic centimeter sealed glass tubes. Parke, Davis & Co., Detroit.

**Yeast Preparations.**—The Council on Pharmacy and Chemistry has adopted a general discussion of yeast preparations for inclusion in New and Nonofficial Remedies. In this article it is stated: The use of yeast as a bactericide in external infections has been practically abandoned. Yeast and preparations derived therefrom

have been widely extolled of late as sources of vitamine B whenever there may be indications for its therapeutic use. However, these indications are so indefinite and the opportunities of obtaining vitamin B through the customary foods are so abundant that the demand for yeast vitamin seems to be limited. The therapeutic aspects of the vitamin problem are still in the experimental stage. Yeast has a laxative action, but the cause of this action is not known. Yeast has been recommended for internal administration because of its supposed beneficial effects upon furuncle, acne, etc. Many clinicians doubt this effect, which may, after all, be expected from any anti-constipation agent. It is not clear to what extent, if at all, live cultures of yeast may be used to change the intestinal flora in cases where such a change is desirable. (Jour. A. M. A., July 8, 1922, p. 135.)

**Typhoid Vaccine (Prophylactic)**—P., D. & Co.—A typhoid vaccine (see New and Nonofficial Remedies, 1922, p. 310). Marketed in packages of three ampules, containing 500 million, 1,000 million and 10,000 million killed bacteria, respectively; also in packages of three syringes, containing 500 million, 1,000 million and 10,000 million killed bacteria, respectively. Parke, Davis & Co.

**Gonococcus Vaccine**—P., D. & Co.—A gonococcus vaccine (see New and Nonofficial Remedies, 1922, p. 301). Marketed in packages of four 1 cubic centimeter bulbs, each containing 1,000 million killed bacteria; in packages of four 1 cubic centimeter syringes, each containing 1,000 million killed bacteria; also in 5 cubic centimeter and 20 cubic centimeter bulbs containing 1,000 million killed bacteria per cubic centimeter. Parke, Davis & Co., Detroit.

**Furunculosis Vaccine**—P., D. & Co.—A staphylococcus vaccine (see New and Nonofficial Remedies, 1922, p. 306). Marketed in packages of four 1 cubic centimeter bulbs, each containing 2,000 million killed staphylococcus aureus obtained from furuncular lesions; in four 1 cubic centimeter

syringes, each containing 2,000 million killed staphylococci; also in 5 cubic centimeter and 20 cubic centimeter bulbs, each containing 2,000 million killed staphylococci per cubic centimeter.

**Staphylococcus Vaccine (Combined)**—P., D. & Co.—A staphylococcus vaccine (see New and Nonofficial Remedies, 1922, p. 306). Marketed in four 1 cubic centimeter bulbs, each containing 1,000 million killed staphylococcus albus and 1,000 million killed staphylococcus aureus; in four 1 cubic centimeter syringes, each containing 1,000 million killed staphylococcus albus and 1,000 million killed staphylococcus aureus; also in 5 cubic centimeter and 20 cubic centimeter bulbs, containing 1,000 million killed staphylococcus albus and 1,000 million killed staphylococcus aureus per cubic centimeter. Parke, Davis & Co., Detroit.

**Vaccine Virus**—P., D. & Co.—A vaccine virus (see New and Nonofficial Remedies, 1922, p. 290). Marketed in packages containing one capillary tube and in packages containing five capillary tubes. Each package is accompanied by a bulb for ejecting and a needle for scarifying. Parke, Davis & Co., Detroit.

**Erysipelas and Prodigiosus Toxins**—P., D. & Co.—An erysipelas and prodigious toxin (Coly) (see New and Nonofficial Remedies, 1922, p. 315), marketed in packages of five 1 cubic centimeter bulbs and in 15 cubic centimeter bulbs. Parke, Davis & Co., Detroit. (Jour. A. M. A., July 15, 1922, p. 217.)

During July the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Unofficial Remedies:

The Abbott Laboratories: Neocinchophen-Abbott Tablets 5 grains.

Mallinckrodt Chemical Works: Benzyl Benzoate-M. C. W.

## LAXATIVES—UNTOWARD EFFECTS OF LAXATIVES.

Lately a number of instances of cutaneous manifestations due to the use of phenolphthalein as a laxative drug have been brought to the attention of physicians, particularly by dermatologists. Now Underhill and Errico have demonstrated that when magnesium sulphate, sodium sulphate and potassium and sodium tartrate are administered experimentally in doses capable of producing diarrhea, a distinct concentration of the blood may take place. The fact that purgatives exert a definite influence, in the direction of concentrating the blood, indicates that care should be exercised in the administration of purgatives in disease conditions, especially in those conditions known to be responsible for concentrated blood. Blood concentrated not dangerous in itself, may reach a dangerous concentration by the added influence of the purgative.—(Journal A. M. A., June 24, 1922, p. 1964.)

## RELATIVE VALUE OF MEDICAL AND SURGICAL TREATMENT OF GASTRIC AND DUODENAL ULCER.

Whatever the future may reveal as to the causes of ulcer and the influences that retard its healing, these results Bertram W. Sippy, Chicago (Journal A. M. A., July 1, 1922), asserts may be obtained by maintaining an efficient neutralization of free hydrochloric acid in the manner advocated by him. In his service the method has been found applicable to the rich and poor alike. After the four-week period of accurate supervision, the patient is able to take up his full work and continue with it, irrespective of its character, for the required time—a year or more if necessary. Prepared chalk, magnesium oxid and sodium bicarbonate are relatively inexpensive drugs. Except in those cases in which surgical treatment is clearly indicated, all agree that medical treatment should be given a thorough trial before resorting to



surgical measures. Sippy is sure that if the medical treatment outlined by him is applied without modifying it to such an extent as to destroy its value, the necessity for surgical treatment of peptic ulcer will be very greatly reduced.

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### THE RELATIVE ROLES OF MEDICAL AND SURGICAL TREATMENT IN GASTRIC AND DUODENAL ULCER.

Relative rest, a nonirritating but ample diet, the utilization of certain simple principles as to physical therapy and simple medication, with the subsequent inculcation in the patient of proper habits of living, not only as regards diet but also as regards the proper attitude toward his environment, according to Thomas R. Brown, Baltimore (*Journal A. M. A.*, July 1, 1922), are the fundamentals of medical therapy, in addition to the elimination of factors that may play a prominent etiologic role, notably focal infection and diseased conditions in other portions of the abdomen. He urges that cases should be individualized. Some patients will do well on milk and cream, others on a diet rich in carbohydrate, but relatively poor in protein. In some, hourly feedings are beneficial; in others, longer intervals bring better results. Practically the same estimated proportion of cures—all, incidently, far too high in Brown's opinion, because of the improbability of correct diagnosis in certain cases and the impossibility of thoroughly following up many cases—have been reported by the violent partisans of each special dietetic schema; which should suggest that frequent feeding with any suitable nonirritating diet is the great desideratum, if the patient is given, in addition, proper bodily and mental rest. Many patients are cured spontaneously, and will be cured whatever the diet, and

also many others are not cured by any diet. Psychogenic and neurogenic factors unquestionably assume a more prominent role than mechanical irritation of food, and the mitigation and diminution of these factors will do more than any one thing in bringing about a symptomatic cure at least, or in preventing a relapse. Far too little attention has been paid in the period of after cure, to exercise and other forms of physical therapy to improve the nutrition of the patient. It seems wise that all acute ulcers, except, of course, those with symptoms of perforation, be tried first with medical treatment for the success of such treatment in this group of cases is large, and it seems wise also that, in the present state of surgical therapy, even in the chronic ulcers, except those with marked organic obstruction or with a history of repeated hemorrhage, nonsurgical treatment be tried first, not because a true cure cannot be effected, because in the cause of the deep callous ulcer, with induration and cicatrization, cure, in the true sense of the word, cannot be obtained by medical means, though often a disappearance of symptoms and a symptomatic cure can be brought about but it seems fairer to the patient than immediate recourse to surgery, with its multiple possibilities of early and late postoperative complications. If, on the other hand, medical treatment does not bring about relief, it is foolish not to give the patient the possible benefit of surgical therapy, with resection of the ulcer, and as close an approximation to the normal physiology as possible, in the hope that adhesion formation and disturbance of gastric function will be reduced to a minimum after the operation. Chronic callous ulcer is fundamentally surgical, and would always be surgically treated were it not for the many postoperative complicating possibilities. Many failures are not referable to the operation as it is conceived, but as it is surgically; for the technical difficulties of this work are great, and the really capable surgeons in this sphere none too numerous.

**ABSTRACT.**

Daniel Morton, M. D., F. A. C. S.  
St. Joseph, Mo.

### **The Diagnosis of Cancer of the Rectum and Sigmoid.**

The writer said that there is no first symptom of the cancer of the rectum, but rather a fairly constant symptom complex consisting of a sudden unaccountable "initial constipation," followed by a "morning diarrhoea" and in six to nine months bloody stools. The symptoms vary, as stated by Goodsell and Miles, according to the progress of the disease, i. e., prior to surface disintegration, during surface disintegration, during infiltration and perforation of rectal wall, during almost complete occlusion, and during metastases to other organs. The chief symptoms of every case are constipation, diarrhoea, pathologic stools, pain, loss of weight and constitutional disturbances. A thorough examination should include careful clinical history of patient, examination of stools, digital examination of rectum, digital examination of vagina, bi-manual examination of rectum, procto-sigmoidoscopic examination, biopsy (?), possible exploratory laparotomy, differential diagnosis, and X-ray examination. A differential diagnosis must be made from hemorrhoids, blind internal fistula, polypi, superior pelvic abscess, intussusception, tumors, outside rectum, diverticulosis, syphilis, tuberculosis, actinomycosis, villous tumor, and fibrous stricture. Cancer statistics seem to show that 50% of all cancers attack the alimentary canal, and 6.2% the rectum, and that, of those in the alimentary canal, 16% attack the sigmoid and rectum. In Herman's statistics of 20,054 cases of all cancers 12,004 were in the rectum. One must think of cancer of the rectum in terms of hundreds of thousands, and not as an occasional finding. Hence the importance of its diagnosis. Finally the writer said that the usual late diagnosis may be the patient's, the doctor's, or neither's fault, but rather the result of our lack of knowledge of cancer here as everywhere.—American Proctologic Society.

**ABSTRACT.**

William G. Kiger, M. D., F. A. C. S.  
Los Angeles, Cal.

### **The Percy Method of Treating Cancer of the Uterus Applied to Treatment of Cancer of the Rectum.**

The writer said that, since he adopted the Percy Cauterization method to the treatment of cancer of the rectum three years ago, he had used it in all his cases, a total of forty-five, without operative mortality and that from these he had selected three typical cases to report. It had been amply demonstrated by his series of cases that incising the sphincters with the cautery makes it possible to preserve the greater part of them as useful structures, and he does not expect to have to report later that the anus was converted into a ring of scar tissue by the treatment. His technic depends somewhat on the location of the growth. If the tumor is not very large or not more than half the circumference of the bowel is involved, he incises both sphincters with the cautery knife which Percy uses in incision of the breast. The knife should be heated a bright cherry red in order to cut through quickly, which prevents too much destruction of the severed ends of the muscles, and at the same time sears the surfaces sufficiently to prevent transplantation of cancer cells from the exposed mass in the rectum. This incision definitely exposes the growth, and, if it is situated near the sphincters, can be extended into the mass, but need not go through it since the heat infiltration is the important factor. His water cooled speculum can be introduced so as to protect the uninvolved structures, and the cautery head laid on the growth and left from forty to sixty minutes or until the mass is thoroughly hot or pasteurized, care being taken to avoid carbonization of any of the involved structures. If the whole circumference of the bowel is involved, the water cooled jacket or the small water cooled vaginal speculum can be used to cover the heating iron and protect the sphincters from prolonged action of the heat. Either of these instruments may be found useful



in some situations or conditions where his special water cooled rectal specula may not fully meet the purpose. He has also had two extra sized cartridge shaped heating heads made to more quickly expose massive rectal cancers to a greater body of heating surface, till by constant contact the parts are thoroughly and completely heated through.—American Proctologic Society.

### FOR SALE.

Doctor's home; small town; Dixie highway; roads excellent; collections good; Junior High School; large unopposed practice. Add., J. H. Griffin, Armuchee, Ga.

### ABSTRACT.

J. Rawson Pennington, M. D., F. A. C. S.  
Chicago, Ill.

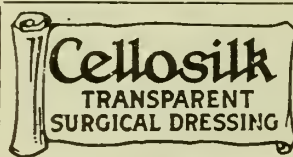
#### A Method For Anchoring Radium in Carcinoma of the Rectum.

The writer said that, in carcinoma of the rectum and pelvic colon, the usual method of applying radium is on a flexible probe, but that by this method one has no means of knowing whether or not the radium is well within the mass or simply impinging against it; and that even if one succeeds in locating it well within the growth he has no assurance that it will remain where the destructive action is desired, since peristaltic waves and sphincter contractions may change the position. To overcome these objections, in case to which he referred, he passed a beaded seton through the colostomy opening, pelvic colon, rectum and beyond the anus. The beads were perforated buckshot placed four inches apart, since that was the distance from the verge of the anus to the nearest edge of the growth. The radium was attached to the seton, and, by manipulating this, it was easy to locate the radium in the carcinomatous mass and maintain it there without inconvenience to the patient. This method keeps the radium in contact with the growth and

does not preclude the use of radium needles. The writer applies the same principle in carcinoma higher up in the colon, a cecostomy first being done, and then the seton being passed through the entire colon and rectum. He cautioned that both ends of the radium container must be fastened to the seton, which must not be removed until the treatment is finished.—American Proctologic Society.

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# THE JOURNAL

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ATLANTA, GA., OCTOBER, 1922.

No. 10

### DIAGNOSIS AND TREATMENT OF TUMORS OF THE BREAST.\*

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If cancer of the breast is to be cured, an early diagnosis must be made and prompt treatment instituted. More than 50 per cent of the individuals who think they have cancer, are mistaken. In a series of 77 cases seen by the writer, the lesions were benign in 43, doubtful in 7 and definitely malignant in 29.

The increasing propaganda that is being spread by the American Society for the Control of Cancer, State Boards of Health and Medical Associations, in nearly all the States, is focusing the attention of the public on cancer to such an extent that women are seeking advice for many conditions previously overlooked, and as a result, cancer is now more often recognized in an early and curable stage, while a few years ago only the advanced cases were seen.

It is impossible to make a definite diagnosis of cancer of the breast before the disease has reached an advanced stage, for when a clinical diagnosis is certain, it is almost useless to operate, except as a palliative remedy. As our experience increases, we feel that we are less able to be sure of our diagnosis. In 1911, Wm. L. Rodman made the following statement: "Twenty years ago I felt sure that a differential diagnosis between benign and malignant tumors of the mammary gland could be made with reasonable certainty. An increasing experience, year by year, has taught me the fallacy of this opinion."

A family history of cancer should not, in the least, influence our opinion in making a diagnosis; for it is almost impossible to find a patient in whose family a cancer has not occurred. Life insurance companies no longer regard it as influencing the risk.

A history of trauma occurs in from 7 to 12 per cent of cases. One of my patients was so sure that a blow on the breast caused the tumor, that she mentioned it every time I saw her. A blow on the breast may call the patient's attention to the tumor, but it is doubtful if it ever causes it.

Wm. J. Mayo has called attention to the frequency of breast cancer in England and the United States, and their infrequency in Japan. He suggests that it is possible that the mode of dress has some influence on their development. I have not secured records of the kind of clothing worn by the 29 individuals in my series, but as 13 of them were negroes, it is doubtful if all wore corsets.

The fact that a woman has or has not borne children does not seem to influence the character of the tumor, for 6, or 17.7 per cent of my carcinoma cases had borne and nursed their children; while 8, or 18.6 per cent of the benign tumor cases had nursed from one to five children.

Age is one of the most important factors in determining the character of the tumor. There is about 1 chance in 2,250 that a tumor of the breast in a woman under 25 years of age is cancer. If, however, a patient over 35 consults us for a single unilateral tumor, we should be very suspicious of its character, and "believe it malignant, until it is proved otherwise." The frequency of cancer of the breast increases

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from 35 to 55, then decreases from that age to 80, the average age being about 49 years. In the 29 individuals with carcinoma of the breast that I have listed in this series, one was 27, and one was 73, while the others were between 35 and 55.

Pain is unfortunately an infrequent early symptom. Only one of my 29 patients gave a history of early pain. This, however, has not been the experience of others, for it is said to be present in about 10 per cent of cases. If pain were an early symptom the mortality would be greatly reduced, because patients seek aid for pain. The invariable answer to the question, "Why didn't you come sooner?" was, "It did not give me pain and I just let it alone."

Retraction of the nipple was present in only 3 of the 29 cases. It is unfortunate that so much has been said in reference to this symptom, for when it is present the case is usually advanced and well beyond the stage of a permanent cure. Retraction of the nipple is sometimes congenital. It may be present in virginal mastitis and was seen by me in a girl of 9 years of age, who had that condition in her left breast. She has entirely recovered, and the breast is now as normal in appearance as the other one.

The number of tumors present is an important factor. Multiple or bilateral tumors are less likely to be malignant. In 6 of my 77 cases, the tumors were bilateral; in one both were malignant; and in two both were benign. One had simultaneously an early carcinoma in one breast and mastitis in the other. A cystic mastitis developed in the second breast of one patient, two months after a complete operation for carcinoma. In another a carcinoma developed after the first breast had been removed for an adenoma.

The time that the tumor has existed since discovery is important. A slow growing tumor is generally (though not always) benign. One patient had a discreet tumor in both breasts, one had been present 10 years and the other 9 years. Both were malignant when removed. One pa-

tient had discovered a tumor in her breast 5 years before I saw her, during this time she had borne and nursed two children. The tumor had not increased in size until within the last few months, when it had grown rapidly. One patient had known of the existence of the tumor for 18 months and a masseuse had tried to rub it out. How well she succeeded in rubbing it out of the breast can be imagined, for the patient died with general metastases about 8 months after I operated.

Next in importance to the age of the patient, is the rapidity with which the tumor has grown since its discovery. If a tumor has grown rapidly it is, as a rule, malignant; if slowly, it may be carcinoma, but of a less malignant type. If a tumor has been present for a long time, then begins to grow rapidly, it is malignant.

There was no history of a discharge from the nipple in any of my 29 cases. Bloodgood found a discharge from the nipple in 1.5 per cent of 800 cases of carcinoma, and about 3 per cent in a large series of benign tumors. There was a bloody discharge from the nipple in 2 of my 23 benign cases.

It is almost useless to enumerate the last "sure symptoms" such as absorption of the subcutaneous fat; adhesion of the tumor to the skin; ulceration and enlargement of the lymph nodes, for when these symptoms are present the patient's chances are so slight that it is hardly worth while to operate, except to relieve the late unpleasant symptoms.

Fortunately all tumors or masses, in the breast of women are not malignant, for there were 23 non-malignant tumors, 20 lesions not definitely characterized by tumor masses, and 7 so doubtful that I did not deem it advisable to do an immediate operation. One of the latter, however, was operated on by a friend of mine, and I have learned that the tumor was a fibroma.

In a series of 386 specimens from breast lesions, examined by Dr. Allen H. Bunce, between 1914 and 1922, 136 were carcino-

ma of various types, and 250 were benign lesions. This report very closely follows my own experience.

Among the benign tumors on which I have operated, 9 consulted me because of the presence of a tumor; 9 because of pain and a tumor; and 2 because of a tumor and a bloody discharge from the nipples; in 3 the condition was bilateral. Three of these patients were under 20; the tumor only was removed in 2; one, who had a tumor in both breasts, was kept under observation; two of these patients, both negroes, were pregnant.

When the tumor is freely movable, it is my policy to dissect it without disturbing the breast tissue, and have it examined immediately. I have been mistaken in only one case. Where the tumor is apparently adherent to the skin or deep structures I prepare the patient for a complete operation, so that it can be done if it is found malignant. If only border line, the breast can be enucleated without disturbing the axilla.

I have been consulted by 20 patients who imagined they had cancer of the breast, in whom I could find no evidence of malignancy. There were four young girls in this group, in whom there was more or less unilateral enlargement, with some pain and soreness in the breast. In one the nipple was deeply retracted. This condition is due to an over activity of the gland tissue, producing an hypertrophy, which will disappear without treatment. The cause has not been demonstrated.

In the benign cases, pain was the next most frequent symptom complained of, especially during menstruation. In two there was a watery discharge from the nipples, but no demonstrable mass. A general unilateral enlargement with indistinct nodules was another condition present, which in all cases disappeared.

As already stated, I have made 29 complete Halsted's on patients reported in this series. I have never had an operative mortality. I have been able to trace only 4 of the colored patients, all of whom were

advanced. I have found, however, that one negro, 2 years after the operation, had been treated for an empyema, but was again out of the hospital; one was well four years after the operation; one had a local recurrence, which was being treated by electricity, later she died in Grady Hospital with cerebral metastases; one came back a few weeks after the operation complaining of pain in the scar, but there was no evidence of local recurrence.

The disease in eight of the white patients was advanced. They had extensive lymphatic involvement—six of these are known to be dead, having lived from eight months to two years, but one, operated on 18 months ago, is now taking x-ray treatments for a metastasis around the acetabulum. The treatment seems to be giving her some relief. One is too recent for a report. Of the other patients in whom the lymphatics were not involved, all are living and well, though it is too early in two to say what may yet take place.

When a patient over 35 years of age, in whom there is a unilateral tumor, which has grown rapidly, has not given pain, and is not tender to the touch, is seen, a 90 per cent diagnosis of malignancy is a safe estimate. If it is adherent to the skin, although only enough to cause dimpling, and there are enlarged lymph nodes in the central axillary group, a 100 per cent diagnosis of malignancy and a prognosis of 80 per cent recurrence, is a safe estimate, while in the former group, 50 to 60 per cent can be cured. I have only seen two or three cases, and they are not included in this series, which I thought could not be benefited by a careful operation.

To insure success, the patient should be carefully prepared. It is best to have them under observation for several days. See that the output of fluid balances with the intake, and that the urine is not too acid. The diet should be plain and nutritious. Do not give a cathartic in less than 48 hours of the time set for the operation. Move the bowels with an enema the night before and the morning of the operation. One hour before the time set for the op-



eration give full dose of morphine and hyoscine and 15 minutes later give a retention enema of coffee 8 oz., liquid pepsinoid or panopeptin, 2 oz., glucose and soda each 2 drachms and water sufficient to make 12 oz. I have never had a severe shock when this line of preparation was carried out. To make doubly sure that there will be no shock, I block all the nerves supplying the breast area with 1 per cent novocain solution, to which is added 10 m. of adrenalin chloride per oz. If I intend to use a local or regional anesthetic (and I have done 4 complete Halsted's and more than half a dozen simple breast enucleations with local), I give a little larger dose of morphine and block the brachial plexus and all the intercostal nerves with the 1 per cent novocain and adrenalin solution and infiltrate the subcutaneous tissue of the entire area around the breast but well away from the tumor with .5 per cent novocain solution to which is added 5 m. of the adrenalin chloride per oz.

I make my skin incision to suit the individual case, leaving a wide area on either side of the tumor, the farther away the better. I separate the skin from the deep fascia, and the gland tissue of the breast. Be sure that the deep fascia is removed with the breast. The dissection should be made from without inward and the vessels isolated and clamped before cutting. It requires from 1 hour and 40 minutes to 2 hours to properly remove a breast and clean out the axilla. If the tissues are roughly handled the danger of metastasis and shock is greater.

Although no definite rule can be promulgated, I am convinced, from a careful study of the cases I have seen, that a complete operation will cure at least 90 per cent of early cancer of the breast. To make an early diagnosis, the surgeon must confess his inability to be sure, and have a competent pathologist present to give an opinion on the tumor, or frozen section. Biopsy, or incomplete operations, are dangerous.

A few late cases are cured, but I am un-

decided what to advise. Where there is a recurrence, it discredits surgery and drives the next patient to the quack. If we refuse to operate, the patient likewise goes to the quack, who promises a cure and gets results in a few cases, which are heralded abroad as having been pronounced incurable by the surgeon.

Our only hope lies in EDUCATION. If the public can be persuaded to consult a physician, who will do his duty and advise the right line of treatment early, all will be well. My experience proves that an operation done in the early stage will be followed by a complete cure. All the borderline and benign cases on which I have operated are well, and likewise all the early carcinoma cases.

The x-ray is beneficial as a post-operative treatment, and should be advised and strongly urged in all cases, especially if the tumor has invaded the lymph nodes. If carefully done, the operation carries a very small operative mortality, only one or two per cent at most.

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### TUMORS OF THE BREASTS.\*

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It is estimated that over thirty per cent of all women have tumor of the breast of one kind or another. Twenty-five per cent of them have the condition frequently called cystic mastitis, but known by at least twenty other symptoms, and two per cent of all women develop carcinoma of the breast. Owing to the universal interest in cancer control these women are coming for consultation in increasing numbers and the problem of giving them competent advice that may save them from the ravages of cancer, or protect them from the mutilation of a needless operation has become a matter of great importance. The problem must be met by the clinician, including the family physician and the surgeon relying upon his diagnostic acumen, with a minimum of assistance from the pathologist, partly owing to the danger of obtaining material for sections, and partly to the impossibility of the mi-

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roscope giving information of value in doubtful cases. While the laboratory renders important aid, the responsibility for correct advice must rest upon the clinician, relying upon a careful examination and familiarity with the gross pathology of these conditions.

In some recent studies on tumors of the breast, Bloodgood submitted sections of probably benign tumors in which a partial operation had been done without recurrence, to forty consulting pathologists, with the result that in no case did they all agree as to the malignancy, and their opinion varied from twenty to ninety per cent in favor of the benignancy, while all agreed to the diagnosis in cases clinically malignant.

It is manifestly impossible to remove all abnormal conditions for fear they may become cancerous, especially as cancer develops from unknown sources in the breast, and only exceptionally from metamorphosis of some existing pathological condition. It is impractical to attempt to remove breast lesions in a pre-cancerous state without an entirely unjustifiable amount of mutilation. The diagnosis of cancer must depend upon the clinical evidence of the disease which can be detected with a fair degree of accuracy by careful physical examination with both breasts and axillae exposed.

The symptoms of cancer are fairly definite.

Family history and history of trauma have but little bearing on the case. An abnormal discharge usually comes from a benign cyst, and pain usually indicates a condition other than cancer.

Age is an important factor in diagnosis. Cancer is rare before thirty, and can almost be excluded if the patient is under twenty-five, and should an error be made it would probably not affect the final result as carcinoma of the young is practically always fatal. Sixty-five per cent of breast cancers appear between the ages of fifty and sixty and advanced age gives no immunity.

Cancer appears as a single tumor with

few exceptions and the presence of more than one similar tumor in the same breast, or the other breast, with none of them presenting the characteristic symptoms indicates a non-malignant condition. Of course the presence of one, or more benign tumors in the breasts does not prevent the subsequent formation of cancer, and the differential diagnosis must be made from the dissimilarity of the different growths. Should two or more breast cancers appear at the same time the case will in all probability terminate fatally.

Cancer is a diffuse growth which invades the breast tissue, with no sharp line of demarcation, which characteristic can be made out by palpation. Any discrete, or distinctly encapsulated growth is rarely a cancer. Non-encapsulated areas of mastitis are frequent during pregnancy and lactation and resemble cancer in some respects, but the patient's condition should assist in making the differential diagnosis, and should an error be made and a cancer be overlooked the final result would be the same as all cases of breast cancer occurring during pregnancy and lactation terminate fatally.

In cancer there is an absorption of fat between the growth and the skin and a tendency for the tumor to protrude above the level of the skin. These tendencies are not marked in non-malignant growths.

Adhesion to the skin is almost pathognomonic of early cancer. It can easily be detected by moving the skin over the growth, and is usually the first important diagnostic sign to appear after the lump is discovered. In the advanced stages the skin becomes incorporated in the growth and the surrounding lymphatics blocked, giving the breast a characteristic rough oedematous appearance.

Retraction of the nipple coming on after thirty is also almost pathognomonic of cancer, especially if associated with a simple tumor in the breast. It can be detected in the early stages by stretching out the nipple and any interference with its normal elasticity should be looked upon as suspicious.



Involvement of the axillary glands and involvement and ulceration of the skin are late symptoms, and at this stage there is no difficulty in making a correct diagnosis.

Advanced cases of cystic mastitis, sometimes called Schemmelbush's disease, may cause retraction of the nipple and involvement of the axillary glands, but the other symptoms are so different that a mistake is not liable to be made.

If the growth be diagnosed cancer the only advisable procedure is a complete amputation of the breast together with the pectoral muscles and fascia according to the principles laid down by Halsted some twenty-five years ago followed by x-ray treatment. If there is any doubt as to the real nature of the disease the tumor should first be incised when the peculiar appearance of cancer tissue becomes evident to any one familiar with gross pathology. The cut surface should be touched with carbolic acid and alcohol, or seared with the actual cautery before proceeding with the complete operation. There is no evidence that this preliminary incision increases the danger of recurrence. Should there be any doubt as to the diagnosis after the preliminary incision resection of the growth only should be performed, and the tissue examined by a competent pathologist, and in case of cancer a second operation can be done in a few days with removal of the pectoral muscles and fascia. There is no evidence that the two time operation with a short interval increases the liability of recurrence.

The benign tumors of the breast present a long and intricate chapter in our medical literature. For our purpose we can only mention the cystic tumors, solid tumors, and cystic mastitis.

Cystic tumors occur either as an entity, or as a part of the pathological process in cystic degeneration of the breast. The principal cysts met with are galactoceles, serous cysts, papillomatous cysts, and cancer cysts. A differential diagnosis is usually impossible without section.

Galactoceles are met with most frequently during lactation, although they may

occur in the nuliparous. They are characterized as discrete white walled cysts containing milky, or creamy fluid. They are thoroughly benign and simple extirpation is sufficient.

Serous cysts, or the "blue domed" cysts of Bloodgood, contain serous, or straw-colored fluid. Upon cutting down upon them the capsule presents a characteristic blue color, making the diagnosis certain before the cysts are incised. These cysts are benign and should be extirpated.

Papillomatous cysts contain either serous, straw-colored, or bloody fluid, which frequently escapes through the nipple. The cysts contain papillomatous growths which frequently become cancerous. These cysts are regarded as pre-cancerous lesions and should be extirpated with the surrounding breast tissues and patient kept under observation.

Cancer cysts apparently develop as such and not from pre-existing cysts, or in, or a part of a cystic mastitis. They are characterized by contained grumous, or bloody fluid in the absence of papilloma. When present the radical operation is indicated.

The solid tumors of the breast are largely of the fibro-adenoma type with different properties of the various elements entering into their composition. These are all encapsulated and the differential diagnosis from malignant diseases presents no difficulty upon section. Simple extirpation is indicated.

The non-encapsulated benign tumors, other than inflammatory areas, are rare. They are adenomatous in type and upon section they do not show the characteristic appearance of cancer. They should be removed and in the few cases in which cancer has been overlooked upon gross section, the radical operation should be performed at a subsequent operation.

The most common pathological condition in the breast is sometimes called cystic mastitis though it has at least twenty different synonyms and a quagmire of literature in which there is the greatest divergence of opinion as to the nature of

the process and its relation to malignancy. The disease affects twenty-five per cent of all women (Deaver) after puberty. It is characterized by the formation of multiple solid, or cystic nodules in one, or both breasts, forming the "cobblestone" breast of Warren. The disease is protean in its manifestations both macroscopically and microscopically, and as an end result produces the condition known as "Schemmelbush's disease," characterized by fibrocystic condition of the whole breast, retraction of the nipple, and involvement of the axillary glands.

Formerly the trend of teaching was that cystic mastitis should be looked upon as a pre-cancerous condition. At least ten per cent of all these cases were supposed to become cancerous, and some placed the ratio as high as fifty per cent. Recent studies by Deaver, Bloodgood, Judd and others indicate that the danger from cancer is greatly over estimated. According to Deaver there is no evidence that cystic mastitis ever metamorphizes into cancer, and when the two diseases occur in the same breast it is as logical to assume that the cancer produced the cystic condition as to infer that the cancer developed from the cysts.

Since preparing this paper Bloodgood has published a paper in the Journal of the American Medical Association entitled, "When Not to Operate in Cases of Cystic Mastitis," advising utmost conservatism in this disease and giving much needed warning against unnecessarily sacrificing the breast through groundless fear of cancer. Most of these cases can safely be let alone and the patient's fears allayed. The advanced cases can be treated surgically on their own merits by resection either with or without part of the surrounding breast.

Only one woman in fifteen who has a lump in the breast has a cancer. The benign tumors of the breast are so common that the former tendency to treat them all as pre-cancerous lesions must lead to a "furor operandi" in this region entirely unjustifiable. By familiarity with the clinical manifestations of these breast con-

ditions the surgeon has adequate facilities of giving his patients correct advice, with but small liability of serious error. By advising conservatism, considering all growths benign until they show evidence of malignancy, and keeping their patients under observation no harm is done by delay if the evidences of cancer are not present, and the growth in itself is unimportant. Conservatism and delay, however, are applicable only to cases of benignancy. Should there be evidences of malignancy nothing short of the most radical operation with the least possible delay should be advised.

#### DISCUSSION OF DR. CAMPBELL'S AND DR. WHITE'S PAPERS ON "TUMORS OF THE BREAST"

##### DISCUSSION:

Dr. W. E. Person, Atlanta:

There are two points which I wish to emphasize, which I think are worthy of consideration. The first is that when a diagnosis of cancer is made, a radical operation should be done. I have here a photograph of a case in which an incomplete operation was done, and in which there was recurrence about four weeks later. It shows also the infiltration of cancer. They are inflammatory or malignant. Of course, the history will enable you to distinguish them. Whenever there is a recurrence, it means a radical operation. The incision must be wide, and all muscles and fascia removed. By doing this thoroughly and carefully we can save many cases that now go the mortality route.

Another interesting thing is the development of local anesthesia. It has developed wonderfully in the last few years. It is now possible, with a good operator and a man who understands the operation of the drug, to do a complete removal of the breast with local anesthesia. One essential is that the operator must have confidence in the drug, and must also have patients suitable for the local anesthesia, not too nervous or excitable. He must also have a knowledge of the blood supply in that region. If the novocain is injected directly into the blood stream you will get toxic symptoms. Local anesthesia requires considerably more care and skill on the part of the operator. You have to know definitely what you are going to do, and follow your schedule. An advantage is that the patient returns to bed early, and can eat a full meal afterwards, and there is an earlier and more rapid convalescence.

Dr. S. S. Schochet, Atlanta:

I think this problem is exceedingly interesting, and one that always attracts the attention of pathologists in this field because of the fact that so many individuals die of cancer. Speaking of it from the pathological point of view, we must recognize two facts: that our knowledge of cancer is very limited and that we know absolutely nothing about the cause of cancer nor the exact predisposing causes, except that a lot of people of certain ages, with chronic irritation, have malignancy. Another factor that we must recognize is that we do not know the cause of benign growths, not has it been definitely proved that benign growths become malignant. We are absolutely at sea as to these two conditions.

In the diagnosis of cancer there are a certain number of clinical facts which are very valuable and which can be utilized by every practicing physician. If you put your hand on the breast and move it about, if the mass is due to a new growth, whether carcinoma or galactocoele, you will feel the mass. If it is due to fat, upon pressure of the hand against the breast, the mass will disappear. That is the big differentiation between fat and new growths.

Another question is whether we are justified in taking out a piece of the new growth and examining it, later doing a second operation. We all know the great dangers of cutting into malignancy. The chances are that a certain number of patients will not return for the second operation, and metastases occur earlier after this procedure. I believe that with our data today and with the facilities in most hospitals, we ought to be able to make a diagnosis at the time the patient is on the operating table. We have the freezing microtome, and can make a section in about



eleven minutes. However, we must remember that one area of the breast may be adenomatous and another piece from another section of the breast may be carcinoma. Every growth that looks suspicious should be removed.

Another thing that should be done is to x-ray all the long bones. Carcinoma metastasizes in thirty-three per cent of the cases in the head of the femur and the head of the humerus. You should look at the head of the long bones, and if metastases are present, then, of course, the operation is useless.

Personally, I think that if we sift down the knowledge of carcinoma, it is best for the average man to remove the breast and the axillary glands in all clinically suspicious cases before laboratory diagnosis is made, and later subject the case to x-ray treatment, although I know that a large number of well informed men and surgeons are doing otherwise.

Dr. Campbell, closing the discussion:

I merely want to emphasize the fact that a single unilateral tumor found in the breast of a woman over thirty-five years of age is exceedingly suspicious. If that tumor has existed for a few weeks or for a few months, remaining the same size, and suddenly increases in size, the chances are ninety per cent that the tumor is malignant. If a tumor in the breast of a woman of thirty-five years of age is not painful, if the lymph nodes are enlarged, and if it has become attached to the skin, the chances are one hundred per cent that it is already malignant. If it is removed by piecemeal, even if only a few days elapse, after taking a specimen, until the tumor is removed, the patient's chances for recovery are decreased from what it was originally to almost nothing. There is almost one hundred per cent mortality in these cases. In early, small growths it is permissible to remove a section of the tumor or the tumor and subject it to microscopic examination, later removing the breast if it is found malignant, but in larger growths this should not be done.

There is abundant evidence to prove this; the picture that Dr. Person showed you is only one case but only two months elapsed between the first operation and the time the picture was made. The condition was inoperable but she was suffering intense pain from pressure on the nerve, so we operated to relieve it and to give her a chance that we knew she would not have if the growth remained.

Thirty-seven per cent of all the cases I have seen were malignant. All of my cases which were taken in the early stages have remained well for a period of from a few months to five years. I believe that these will remain well, because we have made an extensive operation. The patients have at least a seventy-five per cent chance for complete recovery.

Dr. White, closing the discussion:

I want to call attention again to this work of Bloodgood. His experience with the pathologists has shown that we can not put much reliance on them. In doubtful tumors of the breast, if you shut your eyes and make a guess you will come about as near the truth. This is especially true with frozen sections. The operator is responsible, and he has to hear the burden, let the pathologist with his frozen section say what he will.

I want to take issue with the statement that a lump in the breast should be removed with the whole pectoral muscle. One in every fifteen is malignant. If we remove the other fourteen, the women will not come to us, and we shall defeat our whole purpose by trying to do too much.

## SOME SURGICAL FACTS GLEANED FROM PERSONAL EXPERIENCE.\*

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Every surgeon learns from his experience certain facts that are of great value to him in his work. The ideas thus formulated cannot be called surgical principles for general application and it is not the purpose of these few remarks to promulgate anything new or original, but only to call to your attention some things that personal observation and experience have

convinced the author to be worthy of consideration.

Diagnostic methods, opinions, and technique in operations are constantly changing. Each surgeon uses his own methods, but his personal equation is moulded by the best surgical teaching of his time. One may get better results than another because he has more operative skill, or because he uses better judgment. It is often the small things that count for most; a simple suggestion may solve a whole problem.

Empiricism was the foundation of therapeutics and was the stepping stone to scientific medicine. Surgery today is on a firm scientific basis. We must know both the science and art of surgery and know it well, but after all, personal experience is one of our greatest teachers. It helps us in diagnosis, in the operating room, and in the after care of our patients. The great physician acquires "his judgment" or his valued opinion by close observation and proper valuation of the symptoms and signs in disease. A complete paper could be written on each of these subjects called to your attention, but it would make this one too long to enter into any discussion.

It has been my observation that prolonged intra-abdominal drainage in septic cases has a tendency to prevent hernia rather than produce it. The large ventral hernias most often follow operations in which there has been an infection in the abdominal wall and in which no drainage tube was used. In the cases in which an abdominal drain has been used, even though there is severe infection and resulting destruction of fascia, the herniae are not as frequent as would be expected. The probable explanation of this is that the presence of the tube extending into the abdomen produces a fibrous canal and solidity under the incision that tends to hold the abdominal wall rigid until the incision is completely filled in with fibrous tissue. It is therefore a mistake to remove drainage tubes too early in order to prevent a hernia. Keeping the incision

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well pulled together with adhesive plaster when it begins to heal should be a part of the after-treatment.

The incision for acute appendix operations should always have superficial drains placed in each end of the wound extending down as far as the fascia. The percentage of wound infection is so high following the removal of acute appendices that such a procedure is certainly indicated. These superficial drains may be removed in a few days and they do not interfere with, but rather promote wound healing by furnishing an exit for the bloody serum that would otherwise have to be absorbed. It is much better also to place superficial drains in all very fat abdomens, and in all incisions in which any superficial infection might be expected.

In acute peritonitis no effort should be made to produce peristalsis of the intestines until the active inflammation has subsided. If let alone the peritoneum will take care of a great deal of infection just the same as the synovial membranes in a joint. But if subjected to the friction of intestinal movements the inflammation will spread and increase very much as it will in an inflamed joint that is forced to perform its function. Active purgation, stimulating enemata, pituitrin, eserine, and all other such remedies are absolutely contraindicated in acute peritonitis regardless of the amount of distention present. The distention and abdominal rigidity are nature's splints for protecting the inflamed peritoneum. As soon as the peritonitis subsides the gas will begin to pass spontaneously. As long as there is softness in the abdomen below the ensiform cartilage the patient's prognosis is good.

Shock during operation or following operation is usually caused by too much loss of blood during the operation or internal hemorrhage after the patient is returned to his room. It is for the patient's interest and safety to take all the time necessary to control bleeding and be sure it is absolutely controlled in all our operative work. In very septic cases a condition of collapse often follows which simulates

shock very closely. Surgical shock is not uncommon following severe injuries. In my experience it has been very rare in operative work. Even in a prolonged operation, if it is bloodless, there is very little shock. The best treatment for shock is transfusion of blood.

It is very suggestive of a chronic appendix when we have a history of one or more attacks of severe colic, a chronic pain in the right iliac fossa and an associated chronic acid type of indigestion. In such cases deep pressure at McBurney's point may elicit tenderness, and rolling the caecum under the finger tips will produce a darting pain across the abdomen or up in the region of the stomach. Without these symptoms and signs a chronic appendix is very hard to diagnose positively. It requires every diagnostic means and sometimes exploratory incision to eliminate all other causes. Lesions of the right kidney and ureter are most often mistaken for a chronic appendix.

An acutely inflamed appendix secondary to acute salpingitis is not as urgent as primary acute appendicitis. The inflammation has begun on the exterior wall of the appendix, and although the pain may be very severe and an operation seems necessary, it is wise to wait, for such an appendix very rarely perforates and has the same chance of subsiding to a quiescent stage as the fallopian tube. As a rule, I do not advise immediate operation for acute appendicitis when I know the inflammation is secondary to an acute salpingitis.

The prevention and cure of cancer are the greatest problems that confront the surgeons of today. Cancer is a problem we have not solved. In 1921 the mortality from cancer in New York City increased 5 1-2 per cent over the previous year. During the same year the increase in the reported death rate for our whole country showed an increase of 3 per cent of the total deaths from cancer. We are trying to educate the public on pre-cancerous conditions, and early treatment of the disease: we are also using all the means at



our command to control the disease and prevent its ravages on the human body; and we do all we can to alleviate the suffering of its victims. We want to know the cause of this great "red plague" of the human race, and it behooves us to see that our civic mortality statistics are growing less each year instead of increasing.

Violent acute abdominal pain does not always mean there is an abdominal lesion. The gastric crises of locomotor ataxia and the referred pains of a spinal tumor have puzzled me in several cases. Two of the most painful abdomens that have come under my observation, the diagnosis of which were very doubtful, proved to be dissective thoracic aneurysm. Both died suddenly and a post-mortem on one of them showed the true cause of the trouble. Experience with the first led to a correct ante-mortem diagnosis of the latter. Neither of these cases presented any abdominal signs or symptoms other than pain. The most rigid board-like abdominal rigidity is seen in cases of tetanus in which there is no abdominal lesion. The syndrome of pain, abdominal rigidity, and tenderness are indicative of some grave abdominal trouble.

The diagnosis of gall stones is sometimes simple and sometimes very difficult. Many people after middle life have gall stones which produce no symptoms at all. A flatulent type of indigestion, with eructation of gas is suggestive of gall-bladder inflammation. A history of colic of the gall bladder type or repeated attacks of acute indigestion is very essential in diagnosing gall stones. The pathognomonic signs of gall stones are a history of colics, symptoms of belching, bloating, intestinal disturbance, and local tenderness over the gall bladder. The x-ray is not of much value in the diagnosis. Any operation on the gall bladder should be called "gall bladder" instead of "gall stones" unless there is a definite history of gall stone colic.

Finally, experience convinces the surgeon that very careful physical examination should be made of all patients before

submitting them to operation. There may be some remote cause for the complaint or a combination of causes that may need attention before the desired relief can be obtained. Hemorrhage from the uterus occurs in leukemic patients and those suffering with pernicious anemia. Hemorrhage from the stomach may be caused by Banti's disease. In fact, the most profuse hemorrhage I have ever seen from the stomach proved to be a case of Banti's disease. One patient who for years had suffered with obscure abdominal pains and repeated acute attacks of various kinds, was found by careful examination to have a right inguinal hernia, chronic recurring appendicitis, a stone lodged in his left ureter, mucus colitis, and tape worm.

Summarizing the facts as outlined and very briefly considered we have the following which we might call "Ten Golden Rules" in the practice of surgery:

1. Prolonged abdominal drainage does not cause hernia.
2. All incisions for removal of acute appendices should have superficial drains.
3. Keep bowels at rest in acute peritonitis.
4. Operative shock is usually caused by hemorrhage.
5. Diagnosis of a chronic appendix.
6. Acute appendix secondary to acute salpingitis not urgent.
7. The cancer problem.
8. Misleading abdominal symptoms.
9. Diagnosis of gall stones.
10. Importance of careful physical examinations.

## SOME OBSERVATIONS ON SURGICAL KIDNEYS.\*

### With Report of Cases and Exhibition of Specimens.

J. P. Proctor, M. D.  
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The kidney is an organ of extremely low sensibility. It may be handled, and even explored into its structure, with only slight pain to its owner. Only as we come to the calyces, pelvis and ureter do we find much

\* Read before the annual meeting of the Eighth District Medical Society of Georgia, at Hartwell, Ga., August 9, 1922.

response in sensation to irritation. However, traction upon the renal pedicle brings about pain just as it would upon the attachment of other abdominal viscera.

Hence, we see that calculi, pus accumulations, neoplasms and cysts may exist within the cortex and medulla of the kidney for years and give rise to no great discomfort to the patient; there being only malaise to varying degree, with more or less constant consciousness that all is not well. Should a cyst rupture and a deluge of fluid or blood be poured into the pelvis and ureter, thus distending these structures; or a stone, hitherto quiescent, attempt passage to the bladder; we have produced the characteristic symptoms of renal crisis, with excruciating pain radiating from the kidney region along the course of the ureter to the bladder, at times into the glans penis and scrotum of the male, at times into the hip and down the thigh into the leg of the affected side; and in some cases the pain referred to the opposite side. The pain is periodical and spasmodic. There may or may not be vomiting, bladder irritation, frequency of urination, flatulence, chills, fever, sweats, as subjective symptoms. Our most reliable objective signs are haematuria and pyuria. One or both will almost invariably appear in the urine unless there be complete closure or blocking of the ureter on the affected side. Since this blocking may be of a spasmodic character, repeated examinations of the urine should be made. Where either haematuria or pyuria, or both are found, exhaustive study should be made. Voided specimens are unreliable because of contamination which may occur in passage, especially in female patients. Specimens catheterized from the bladder, showing haematuria or pyuria, or both, indicate surgical disease somewhere between the cortex of the kidney and the vesical sphincter. The catheterizing cystoscope would then be the key to the situation.

Cystoscopy and kidney catheterization done under sacral anaesthesia are practically painless, even in men, except in cases of highly irritable and contracted bladder

caused by cystitis, tubercular or otherwise. When the patient is nervous or frightened, a hypodermic of morphine is given half hour before the operation is begun. This serves to allay the fears of the patient and increase the effect of the sacral injection.

When a catheter is satisfactorily placed in the pelvis of each kidney, specimens should be collected in clean, sterile test-tubes for comparative study; the capacity of each kidney should be measured and, where there is macroscopic evidence of disease in either or both kidneys, functional tests should be made. In this I rely upon the time it takes the urinary dye to appear in the urine after its injection into the muscles of the thigh. This is more accurate than the percentage test, because of the fact that the dye is assimilated in various degrees by other organs, especially the liver, and not all of it is excreted by the kidneys. Sulpho-phenol-phthalein appears in the urine of normal kidneys within eleven minutes, or less, after intramuscular injection.

Following the function test, the pelvis of the kidney may be injected with some shadow-giving fluid, such as Thorium, or, preferably fifteen to twenty per cent solution of sodium bromide in distilled water, and pyelograms made if desired. Care should be had to allow time for all of the injected fluid to return before the catheter is withdrawn. I have seen one case of bromidism occur from failure to observe this precaution.

No examination of a patient is reliable unless careful study is made of the kidneys. Were this always done, more surgical kidneys would be found and remedied, fewer useless and unnecessary operations performed upon innocent organs, and post-operative diabetic coma and acute nephritis would not so often occur. I do not believe acute suppression of urine ever followed ether or chloroform anaesthesia when the kidneys were sound prior to the anaesthesia. It is to be deplored that so many operations are performed upon incomplete and incorrect diagnoses.



### Report of Cases.

Case 1. M. M. A., a white man, age 47, married, grocer, was referred to me on September 7th, 1921, for diagnosis of the nature of a palpable mass in the region of the left kidney.

Complaint: A sensation of "weight and dull pain in the left kidney region."

Family history: Unimportant except that one sister died of sarcoma, involving the mesenteric glands and both kidneys, at the age of fifty years.

Personal History: Syphilis, for which he was not thoroughly treated, in early manhood. One dead premature syphilitic child resulted from his marriage, and there were no subsequent pregnancies. He was operated upon for appendicitis several years ago.

Present illness began some months prior to his visit to me, with a feeling of discomfort in the region of the left kidney, but there were no acute attacks of pain.

Examination: He is a robust, healthy looking man, rather heavy in weight. Physical examination reveals no evidence of pathology except in the region of the left kidney, where can be palpated a mass about the size of a cocoanut, rounded in outline and moving with the excursions of the diaphragm during respiration. There is very little tenderness and no muscular rigidity. X-ray reveals an indistinct shadow as large as a cocoanut in the left vertebro-costal angle.

On cystoscopy the bladder was found normal. Catheterization of the left kidney obtained normal urine. The capacity of the renal pelvis was 60 c. c., and sulpho-phenolphthalein was excreted in fifteen minutes. Pyelogram showed a very much enlarged pelvis of rounded, symmetrical outline.

Diagnosis: Sarcoma or gumma of the left kidney, or hydronephrosis.

He was sent back to his physician, operation advised and refused.

In his efforts to avoid operation, he went to some springs in Florida, thence to Hot Springs, Ark., and then to Baltimore, where he consulted Dr. Hugh Young, who confirmed the diagnosis, but advised

against operation, claiming nephritis in the right kidney.

The man's discomfort increased to rather severe pain. There were slight rigors and temperature rise to 101. The patient became highly nervous and anxious about himself, as the mass seemed to be increasing rapidly in size. The urinary findings remained the same, but the tumor had become firmly adherent and no longer moved with respiration.

On March 29th, he was referred to me for operation, and on the 30th left nephrectomy was done under ether anaesthesia, a firmly adherent polycystic kidney weighing 1000 grms. being removed. There was an uneventful post-operative course.

In view of the family history of sarcoma and personal history of syphilis, the specimen was sent to Dr. Allen H. Bunce for examination. His report was as follows:

"Tissue: Left Kidney. It measures 23x12x10 cm. Weight 900 grms., after the escape of much fluid.

"The kidney is large, irregular and covered with a thick layer of fat, closely adherent to the capsule. The capsule is thick and strips with difficulty. Underneath the capsule are many very large and small cysts, some of which are filled with dark, bloody material and others with clear fluid, giving it the appearance of many, large and small, light and dark colored grapes.

"Its cut surface is a mass of large and small cysts, some of which are filled with a dark, grumous material. In fact, practically the entire kidney structure is replaced by these multiple cysts. The pelvis is large and contains much fat. Connected with the pelvis is a large, thin-walled cyst, which contains about six ounces of fluid.

"Diagnosis: Congenital polycystic kidney. No evidence of malignancy."

Case II. Mrs. W. A. C., a white woman, age 24; married, was referred to me on March 29th, 1922, for diagnosis and treatment.

Complaint: Dull pain in left kidney region, frequency of micturition, anorexia, loss of weight.

Family History: Unimportant.

**Personal History:** No illness of importance except the present, which began about twelve years ago with bladder irritability and a sensation of dull aching in the region of the left kidney. Two years ago she was sent to an Atlanta surgeon for diagnosis and treatment. After a cursory examination, she was told there was no trouble of importance and advised to return home.

**Examination:** She is a thin, pale anemic young woman of about five feet six inches in height and ninety pounds in weight. Upon palpation, marked tenderness is found over the left kidney region. There is no evidence of pathology elsewhere.

**Urinalysis:** Color, Pale amber; Sp. Gr. 1.016; reaction, alkaline; albumen, large quantity; sugar, none.

**Microscopic:** Pus cells are to be seen in great numbers; some vesical and renal epithelium; no casts.

**X-ray:** The right kidney is normal. The left kidney contains five small stones, distributed throughout the kidney area. Bladder and both ureters clear.

**Cystoscopic:** The bladder is normal except for pouting and redness of the left ureteral orifice. Catheterization of the right kidney obtains normal urine and sulpho-phenol-phthalein is excreted in eleven minutes. There is a steady dropping of a milky looking fluid for several minutes after the catheter is carried into the pelvis of the left kidney. Upon irrigation with boric acid solution, the fluid returns of cloudy appearance; following which there is no urine escaping from the catheter. None of the urinary dye is excreted by the left kidney. Capacity: right, 8 c. c., left 25 c. c. Pyelogram reveals the bromide solution contained in pockets of various sizes distributed throughout the kidney area.

**Diagnosis:** Left Pyo-nephrolithiasis, with complete destruction of kidney structure.

**Operation:** Left nephrectomy was done under ether anaesthesia on April 4th, 1922; the exhibited specimen being removed. In each pocket was found a small stone and a considerable quantity of gritty, sandy

material; the rest of the pocket being filled with pure pus.

**Results:** The wound was entirely healed and the patient dismissed from the hospital on the twenty-first day following operation.

**Case III.** J. M. H., a white man, age 37, single, clerk, was referred for diagnosis on April 15th, 1922. This case was similar to number two, except that the patient was a man, the right kidney involved and the right ureter so tightly strictured as to be impervious to the passage of the smallest catheter. The exhibited specimen was removed by Dr. Fullilove on April 15th. The man had a pretty stormy post-operative course from cerebral embolism, but eventually recovered.

**Case IV.** Mrs. H. C., a white woman, age 37, married, multipara, was referred to me on May 28th, 1922, for diagnosis of the cause of pyuria and pain in both kidney regions. The diagnosis was double pyelitis and nephritis.

The case was of interest only because of the accidental demonstration of the extreme muscular pressure upon the kidneys by such acts as vomiting.

Owing to an idiosyncrasy to morphia, this patient became intensely nauseated and vomited just at the time of the determination of the capacity of the left kidney. An olive-tipped No. 5 F. catheter was carried to the pelvis of the left kidney. Thirty cubic centimeters of boric acid solution caused pain and vomiting ensued. The syringe was detached and immediately the injected fluid returned through the catheter with great force, being projected from the outer end of the catheter in a solid stream to a distance of twelve inches from the end of the catheter. In the intermission between the straining of emesis, the fluid returned through the catheter in drops at the rate of sixty per minute. When the straining to vomit was repeated, the fluid was again projected from the end of the catheter in a solid stream; just as would be the spinal fluid under high pressure.

It seems to me that this fact might lead in part to a solution of the problem as to why kidneys break down and uraemia oc-



curs in such conditions as pernicious nausea and vomiting of pregnancy, and similar conditions following ether and chloroform narcosis, etc.

Though I have seen no mention made of this phenomenon in books and journals on urology, I make no claim of priority of the discovery. I have made one deliberate attempt to demonstrate the mechanical effect of vomiting upon the kidneys, but apomorphia, given with "malice aforethought" failed to produce emesis.

### Recapitulation:

1st. The kidney is an organ of low sensibility, and calculi or fluid accumulations may exist within its structure for years without giving rise to definite subjective symptoms.

2nd. Only the attempted passage of calculi or the sudden distention of the pelvis or ureter by large quantities of fluid will occasion the subjective symptoms of renal crisis.

3rd. X-ray demonstration of renal calculus is insufficient. Kidney catheterization, functional test and pyelography must be done to completely demonstrate the extent of the lesion.

4th. Time elimination of urinary dyes is more reliable than percentage test.

5th. Calculus formation is preceded by bacterial invasion of the kidney. In the presence of renal calculus there is always present pyuria to some extent.

6th. No kidney should be removed until it is proved functionless or a menace to life unless the other is approximately functionally sound.

7th. The pressure exerted upon the kidney by such mechanical acts as vomiting is sufficient to account for renal insufficiency accompanying pernicious nausea and vomiting of pregnancy.

8th. A thorough examination of the urine should be an important part of the examination of every patient.

## REPORT OF TRACHOMA CLINIC CONDUCTED AT PELHAM, MITCHELL COUNTY, GA., NOVEMBER 14, 1921-APRIL 1, 1922.

By John McMullen,  
Surgeon, United States Public Health Service.

At the request of the State health officer of Georgia, an investigation of trachoma was instituted in Mitchell County, South Georgia, in September, 1921.

It appeared that one of the eye specialists in a near-by town for some time had been receiving patients from Mitchell County that he believed to be suffering from true trachoma. Since the patients lived at some distance and did not cooperate with the doctor, the treatment was more or less unsatisfactory. He reported this to the local authorities and suggested that the Public Health Service be requested to determine the real nature of these cases. The result was the request from the State health officer for an investigation.

In September, 1921, the writer arrived in Camilla, the county seat of Mitchell County. The county school superintendent furnished transportation, and one of the trachoma cases, an ex-soldier, acted as guide for visits in the rural districts.

The infection was thought to be most general in the southwestern portion of the county, and the investigation was accordingly commenced there. The actual survey in the county occupied only one day, September 15, 1921. On this day two schools were examined and a number of homes in that section of the county were visited. One of the schools was very small, and only a few suspicious cases were found. The other school, however, had about 130 pupils and was found to be heavily infected with trachoma. Of the homes visited, one consisted of the parents and six children—the parents were about 40 years of age and the ages of the children ranged from 2 to 18 years, all suffering from positive trachoma. The mother had completely lost the right eye as a result of trachoma, and vision in the left

was reduced to the ability to count fingers at a few feet. Practically all of the sequelae were present and the entropion and trichiasis were very marked. Another family visited consisted of five members—all suffering from positive trachoma, with the exception of the father. The mother, aged 25, had had trachoma for years and was unable to care for her little children on account of her eyes. Her three children suffered from well-marked cases of this disease.

Another family visited showed the father, aged 55, to be affected with trachoma of the papillary type. The conjunctiva was markedly hypertrophied, presenting the strawberry-like appearance; there were pannus, marked photophobia, and reddened, angry-looking skin of the eyelids. The family of this man consisted of some six or eight children, only three of whom were at home at the time of the examination. These three were found to have positive trachoma. Other cases of trachoma were found in the various neighborhoods—a total of 30 cases being found and examined during the day. These cases left no room for doubt as to diagnosis, since the majority of them already had the sequelae of the disease, including cicatricial contraction of the conjunctiva, pannus, photophobia, etc. A subsequent examination some months later showed many more trachoma cases, some of whom had lost both eyes from trachoma; others had been blinded in one eye, and a considerable number of others had had their vision greatly reduced as a result of this disease. Many of these showed the cicatricial contraction of the conjunctiva, leukoma, and other undoubted sequelae of trachoma.

Further primary investigation was deemed useless, as the first day of the survey showed an extremely serious condition in Mitchell County, and one which demanded immediate and drastic action on the part of the local authorities. The county commissioners and persons locally interested were informed of the findings of the survey. A report was made also, both personally and in writing, to the

State health officer in Atlanta. He was advised of the seriousness of the situation and urged to see that some action was taken by the county commissioners without delay. There was no health officer in Mitchell County at that time. In undertaking this public health work it was believed to be most essential that the county have a full-time health officer to co-operate, and this matter was brought to the attention of the State health officer.

The plan outlined for the relief of the situation was a trachoma clinic—the Public Health Service to furnish a medical officer and two nurses, experienced in trachoma work, and the county commissioners to supply the hospital building and pay all expenses incident to the clinic. While it was impossible to give in advance any accurate estimate of the amount of money needed, it was suggested that the county secure the use of a building and appropriate \$1,000 as a start.

In Pelham, which is in Mitchell County and very near the county seat, a small modern hospital was found to be available. This hospital and a connecting residence had been built very recently by a private physician. It had, however, proved a financial failure and the county was thus able to secure both buildings for the trachoma work.

The clinic was opened for the reception of patients on November 14, 1921, after having been advertised a few days in advance. The opening was attended by health officers and medical men from many sections of Georgia, the county commissioners, and other interested citizens.

While the hospital and clinic were established for the purpose of preventing the spread of trachoma and eradicating the existing cases, the State department of health, local physicians, including some of the eye specialists, the county commissioners, and others, requested that all other conditions affecting the eye, ear, nose, and throat be treated when occurring in indigent patients. None of the medical men in this county practice these specialties,



and under the conditions the request was therefore complied with.

The staff of the hospital consisted of Passed Asst. Surg. J. L. Goodwin (R) and nurses Nora Tonnemacher and Anna M. Nimmo. Doctor Goodwin is an eye specialist with years of trachoma experience, and the nurses have been on duty for several years on the Public Health Service trachoma hospitals. Attendants were supplied by the county. The capacity of the hospital was about 25 beds. All patients were furnished not only free treatment, but free bed and board at the expense of the county for the time they remained in the hospital.

Immediately after the clinic was started, the large number of patients applying overran the hospital, and it was necessary to keep a waiting list and notify them when they could be admitted for treatment. The response was immediate and most unusual; the patients came in when told and co-operated in every way for the successful handling of such a large clinic. From start to finish the clinic proved to be an exceedingly busy one, and the doctor and nurses were on duty practically all of the time, as it was not unusual to have more than 100 dispensary cases during the day, in addition to the operative work, which was usually done in the early afternoon.

In order, therefore, to visit the rural schools, it was necessary to arrange in advance so that as few patients as possible would apply for treatment on those days when the medical officer in charge was visiting the schools in the community. Every school in the county—32 in number, with 1,948 pupils—was examined. This work was done in co-operation with the county health officer.

While previous to the establishment of the trachoma clinic there had been some action taken looking toward the appointment of a county health officer, some opposition apparently had developed and the appointment had not been made. Very soon after the commencement of this public health work the health officer was ap-

pointed and rendered valuable assistance to the medical officer in the district work.

In this district work and examination for trachoma, the cases ranged from those of well-marked, long-standing, positive trachoma with the sequelae, including total blindness in a number of cases, to the lighter forms of lid trouble and simple conjunctivitis. While in some of the cases it was impossible to determine at once the true diagnosis, they were all cured in the interest of public health.

The clinic was in operation from November 14, 1921, to April 1, 1922, inclusive—a period of four and one-half months. During this time a total of 381 operations were performed, 90 under general and 281 under local anesthesia, for various conditions of eye, nose, and throat.

Aside from the public health aspect of this question, many of the cases admitted to the hospital presented that pathetic appearance which is so commonly seen in the trachoma clinics and which appeals to the humanitarian side and stimulates the workers to the highest possible effort to retain the flickering light all but lost as a result of this mutilating disease. It can be said, therefore, that the sight of many of these children has been saved, and many have been relieved of their trachoma in time to prevent total destruction of the eye. Mothers have been restored to their places in their families, fathers resumed their work as bread winners, and children returned to school as a result of this public health endeavor by the United States Public Health Service, the State of Georgia, and the local authorities.

The doctor and nurses were instructed to conduct this trachoma hospital in exactly the same manner as that used at the Public Health Service trachoma hospitals. The housekeeping was under the direct supervision of the nurses. During the four and one-half months that the clinic was in operation there were admitted to the hospital 224 persons (the total number of admissions was 302, some of these being readmitted after being discharged to their homes for various reasons). The total

hospital cost to the county, not including fuel, light, water, and telephone, was \$1,-874.73. The subsistence cost for the four and one-half months (nurses, attendants, and patients) was \$944.42; the number of meals furnished was 7,153, the average cost per meal being a little over 13 cents, which is believed to be about as economical as is consistent with a balanced ration. The hospital was not completely furnished, and about one-fourth of the total cost was spent for cots, blankets, etc., which remained on hand after the clinic closed and were available for other uses.

The origin of the trachoma in Mitchell County dates back at least several generations, and apparently is found in the ancestors of the first family visited in the original survey. Mrs. S., aged 70 years, two sons (one of whom is blind), and their families, all have trachoma. Mrs. S.'s sister, Mrs. F., aged 67 years, is totally blind from trachoma. These people are sturdy, honest farmer folk, of true American stock, whose ancestors settled this country, and their physical condition is excellent for this terrible handicap. The history is obtained from Mrs. S. and Mrs. F., that their mother, a Mrs. Sn., had "chronic sore eyes." Mrs. Sn. apparently had lived in Mitchell County most of her life, but some of her younger days were spent in Florida. If history is to help in tracing the genuine cases of trachoma, I believe we can go back to this Mrs. Sn., but there the chain is lost in the fourth generation.

The cases treated have practically all been cured, and it is believed that almost all trachoma cases in Mitchell County have been treated. A few cases of the old chronic type of trachoma, which showed a disposition to relapse, were probably not entirely cured. These cases have been turned over to the county health officer for further treatment. The county health officer acted as understudy to the medical officer in charge for some weeks in order that he might learn the proper procedure and treatment in dealing with these cases.

Splendid work was done by the medical

officer in charge and the two nurses assisting him. Although on duty practically all the time during the four and one-half months, they were tireless in their efforts and unfailing in their interest and enthusiasm throughout the entire time. They deserve special mention in this connection for faithful, conscientious, and loyal service. It is a pleasure to state that the citizens of the community appreciate their ability and the help given in this piece of public health work.

With appreciation, acknowledgment is made of the thorough co-operation of the State board of health, the county commissioners of Mitchell County, the local physicians, and interested citizens, which made the work possible and assured its success.—Public Health Reports, v. 37, No. 35, Sept. 1, 1922.

## GUNSHOT WOUNDS IN GENERAL PRACTICE.\*

### With Report of Cases.

A. K. Bell, M. D. and J. H. Nicholson, M. D.  
Madison, Ga.

In presenting this paper we had in mind the general practitioner and not the surgeon who has a hospital with all its up-to-date facilities for handling these cases, and we trust that something we have to say may be beneficial to some of you in the future.

As most of you are aware, the majority of gun and pistol shot wounds we have to deal with in a general practice are attended with a great number of dangers, and especially is this true of wounds of the abdomen. According to Keen and other able surgeons, gunshot wounds of the abdomen are more serious, and mortality is greater in civil life than in war. As for gunshot wounds of the face and extremities, the greatest danger is, shock, hemorrhage, sepsis, septicemia, loss of use of limbs, total loss of limbs and scars of face and neck.

The first step in the treatment of any open or punctured wound is control of hemorrhage. This may be accomplished

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by mere pressure with a properly applied bandage, or, if the bleeding is profuse, first enlarging the wound if necessary, by seizing and ligating the vessels. As for shock, we have found that morphine and atropine, and possibly a small, warm normal saline enema have been sufficient.

The second step is the removal of all foreign substance, and in some of the cases we have had, the wounds had to be enlarged nearly twice their size in order to clean them thoroughly. Next remove all charred tissue. Remember, before doing all this work we dried the skin by means of sterile gauze, then applied tincture of iodine to all parts of the wound and adjacent skin.

It is no longer considered good surgery to examine the wound with the fingers, and the employment or introduction of gauze or cotton into the wound, has been condemned. The indiscriminate employment of peroxide or other so-called antiseptics, together with unnecessary handling of the injured parts, is likewise condemned as tending to increase trauma and adding to the possibility of spreading infection. In treating any wound the most important thing is the conservation of as much tissue as possible, the minimizing of the reparative work, and the prevention of infection.

In disinfection of septic wounds and keeping down sepsis, there are numerous antiseptics on the market at present that are being used throughout the world, and each has its virtue, but we have used only the well known Dakin solution and acriflavine. The sensational success achieved in the sterilization of septic wounds by the Carrel-Dakin method has received the indorsement of English and French surgeons, and is now employed with marked success in hospital and private practice by American surgeons. There is no question about it being a valuable asset in the treatment of wounds, since the technique of its employment by Carrel enables the surgeons to assume greater risks in the treatment of many cases of open wounds, compound fractures, and suppurating joints,

which heretofore seemed impossible to render aseptic. Not only is this solution bactericidal, but it possesses the advantage over other stronger antiseptics, of having the power to destroy pus and sloughing tissue.

Every case of gunshot wound of the extremities has to be treated according to the amount of damage done, and in these cases it is our duty to leave as much muscle and bone as is possible, and this is the time when your Dakin solution will be needed most, for without it sloughing would undo what you had striven to accomplish.

In treatment of gunshot wounds of the abdomen, immediate operation is always indicated, and if done under aseptic conditions, is relatively safe, since fatal results are due to hemorrhage or septic peritonitis. Both are avoidable by early surgical intervention. Keen, in his work on surgery, vol. III, page 743, says, "Repair of the gastric or intestinal wounds by suture or excision is called for in all forms or characters of wounds." Gastroenterostomy is rarely necessary. Wounds of the solid internal organs may be sutured or packed. Wounds of the bladder may require either suture, partial excision or perineal drainage. In pistol shot wounds of the stomach, which are most common, it is possible for these bullets to penetrate or pass completely through it, and in some cases recovery takes place without serious symptoms or after-effects, nevertheless, as DaCosta says, "In civil practice it is safer and better surgery to make an exploratory incision, which is the only means of determining the extent and character of the injury;" this in our mind is the only way to prevent infection. The stomach should be emptied of its contents by repeated lavage and after making the incision, immediate search should be made for the wound, and when found should be closed temporarily by some suitable forceps. All extravasations, blood clots or any remaining content of stomach, should be carefully sponged away. The surrounding portion of the peritoneal cavity should be protected with

sterile gauze. After thoroughly cleaning the parts, the wound should be closed with continuous catgut suture. Time does not permit us to go into detail about the various methods employed in the treatment of the different wounds outlined above. The following are some cases reports and end results that we think will be of interest:

Case No. 1. H. B., negro boy, age 18, was shot in the left forearm, just below elbow, with old musket, loaded with shot, the load entering the olecranon process, tearing away the entire head of ulna and part of shaft down to tuberosity of radius. All the soft tissue was shot and burned away, exposing the shot-off shaft of ulna and uninjured radius. All the shattered bone and as many of the shot as possible were removed and burnt tissue was cut away to the margin of healthy tissue. The end of the ulna was smoothed off and anchored to the tuberosity of the radius. The radius was dislocated from humerus and placed in center of distal end of humerus. The tuberosity of radius was scraped, denuding it of periosteum and bone cut into, this being done to cause the bone to throw out provisional callus so the radius and ulna would unite, giving more strength to the forearm. The wound was partially closed as far as we could bring the soft tissue together to cover the bone. This wound was considered septic, on account of the badly burned area and, too, the amount of clothing carried into it, so we instituted irrigation with 1 per cent Dakin solution at once, using Carrel-Dakin method for about a week. Patient made good recovery, never having much sloughing, and in fourth month was pulling fodder, cutting wood and playing baseball. He has a good useful arm; however supination and pronation were reduced about fifty per cent.

Case No. 2. Negro boy, age about 22, after firing muzzle loading shotgun, started reloading it; after pouring the powder in the gun and placing the wad, he poured the shot in with the palm of his hand, thereby holding his hand over end of barrel to get all the shot in; just at this time

the gun fired, tearing away the first metacarpal bone of the right thumb. Upon arrival we stopped the hemorrhage, and the shattered metacarpal bone was taken out, bringing the second bone of the thumb down and articulating it with the carpus. These surfaces were sutured together, free drainage being left, and an uneventful recovery took place. At present he has a very good thumb, altho some two inches shorter than the other one.

Case No. 3. R. H., negro man, age about 30, was shot through femoral artery with .32 caliber pistol, in region of Hunter's canal. The bullet passing directly through the artery, hemorrhage was profuse, in fact to the degree of syncope, the circulation becoming so feeble that a blood clot formed and plugged the hole thereby arresting the hemorrhage before the doctor arrived. In about three weeks we were called to ligate the artery as hemorrhage had started again, together with a vast amount of swelling. Upon making an incision in the upper part of Hunter's canal, extending towards Poupart's ligament, and reaching the artery and opening the sheath we found that the artery and vein had adhered together from inflammation. Upon trying to separate the vein and artery, a hole tore in the vein, causing still more hemorrhage. After repeated trials by careful dissection the vein continued to tear, and all this time the incisions were carrying us towards Poupart's ligament, higher and higher. After reaching about three inches below the acetabulum it was not deemed advisable to go further, so the artery and vein were ligated together, the incision was closed with continuous catgut suture and patient made a very satisfactory recovery in every way and has a very useful leg, doing work all the time on a farm. After four years his condition is good and nothing abnormal has happened. Contrary to principles the artery and vein were ligated together, but what else could we do?

Case No. 4. L. A., negro boy age 20, shot with shotgun at close range, load entering arm at insertion of deltoid muscle



extending upwards to point of shoulder, tearing away nearly all of deltoid and part of biceps and pectoralis major muscles, exposing the humerus. Ten inch incision was made through wound extending from point of shoulder toward elbow, hemorrhage arrested, all clothing and shot removed, burned muscle taken away, sutured at top of wound, leaving free drainage at bottom. Carrel-Dakin solution, 1 per cent, kept in wound for eight days, after which the remaining part of wound was pulled together with silk sutures and dressings changed every second day. Patient made good recovery and has a very good arm.

Case No. 5. Negro boy, age 19, shot through bladder and small intestine with .25 caliber automatic pistol, about 5 o'clock in afternoon, during last Christmas. We were called to see him about 12 that night. He was suffering intense pain, marked tympanites in all parts of lower abdomen, pulse feeble and patient very weak. It was decided that an operation should be performed at once to save his life. Everything was moved out of room, two lanterns and a lamp were borrowed from a nearby family, instruments were sterilized in a dish pan, patient catheterized, nothing returning through catheter but bloody urine. Upon entering the belly we found that the bullet had gone through the bladder and entered the intestine; about one half ounce of blood and urine was sponged out of cavity and bladder and intestine were sutured. After we closed the incision, we administered 60 c. c. of normal saline solution, intravenously. Under the circumstances, it was almost impossible to do an aseptic operation; patient never regained consciousness, living only 18 hours.

Case No. 6. J. H., white man, age about 35, while hunting was shot by companion with shotgun loaded with bird shot, at about eight feet range, entire load entering outer surface of thigh about ten inches below greater trochanter. After he had killed a bird he stooped over to pick it up when his companion's gun accidentally fired; being in this position when the gun fired, caused the load to take a course

downward and inward, cutting away all the muscle and driving the clothing and wads to the bone. This case has no specific point to emphasize, but is a little out of the ordinary on account of the magnitude of the wound and the after-effects. The load of shot made a wound 11 inches long and about three inches wide; considerable hemorrhage occurred, enough to make him very weak. Upon reaching patient, he refused to take anaesthesia so the only thing we could do was to clean wound out as best we could and then pack it with iodoform gauze; this packing was removed in 24 hours and wound washed out and thoroughly cleansed. This treatment was kept up for five days. During this time patient was progressing nicely, never having any fever; on the following day about 8 o'clock in the morning, which was the sixth day, a profuse hemorrhage began. Patient living 12 miles in country, and the roads being rough and wet, it was impossible to get to him at once, so upon arrival, we found him pulseless and in a comatose state, lying in a pool of clotted blood. Compression was applied to femoral artery above wound and hemorrhage stopped. Patient was then given morphine sulphate, 1-8 gr. and atropine sulphate, 1-150 gr., hypodermically. We then gave him 31 ounces of normal saline solution subcutaneously; pulse promptly responded and in about one-half hour he was conscious. The wound still had the iodoform packing in it, so we did not disturb it; the compress was gradually loosened and packing renewed next day. The cause of hemorrhage was never ascertained, but presumed to be from a loosening of a blood clot from a recurrent artery from the femoral. From this time he made a successful and uneventful recovery. After effects: Patient able to walk but cannot raise toes from ground, this in fifth month, and very little sensation on top of foot. Evidently the great sciatic and external popliteal nerves were injured. At the present time, which makes the sixth month, he can walk better and sensation is gradually returning.

in conclusion, we would like to say that we believe the country surgeon is confronted with more difficulties in treating gunshot wounds than with any other class of patients, because in the severe types we have to keep them confined to bed a long time, have to see them every day, act as nurse and doctor, and, too, in 99 per cent of these cases, the least blood or two groans will call you out the worst kind of a night, and another very important thing we have to contend with is the advice of some "kind" neighbor or friend telling your patient to try some kerosene and sugar, or get Doctor Quack—"he is a wonder and will have you up in a week." It is very seldom that you can find anybody around these cases with intelligence enough to carry out the simplest instructions.

### THE PROGRESS OF MEDICINE IN THE LAST GENERATION.\*

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"Blessed are your eyes which see the things that ye see, for I say unto you many prophets and Kings have desired to see the things ye see and have not seen them." St. Luke 10:24.

These words of the Great Physician can truly be applied to present day physicians and surgeons. The science of medicine has made more progress in the last third of a century than in any three centuries since the days of Hippocrates; first in medical education, second in important discoveries, third in the application of these discoveries in preventing disease, alleviating suffering, and prolonging life.

When the writer began the study of medicine less than six per cent of the students held college degrees, not fifty per cent had completed a high school education and the remaining ranged from the seventh grade up. In 1893 the Johns Hopkins opened its medical school and required from the first a degree from a reputable college with two years in chemistry and physics and a reading knowledge of French

and German. These were the highest requirements of any medical college in the world at that time and their first graduating class had only fifteen members. Now it limits its classes to ninety and has hundreds on the waiting list. All medical schools now require at least two years of college work and many a college degree as entrance requirement.

Then you have a four years graded course with lots of laboratory work instead of two courses of lectures with one evening a week in the laboratory. Most of the colleges now require in addition to this one year in a hospital; then less than ten per cent of the graduates ever got any hospital training. Some may cynically remark: "Oh, what's the use of all this?" Lots of use if you value human life. In the last thirty-five years the average age has been lengthened over seven years. The public is to be congratulated on the fact that it is now cared for by much better trained physicians than thirty-five years ago.

The great discoveries were led by Pasteur, who made practical application of the principles of immunization as illustrated in treating hydrophobia; then Koch demonstrated the tubercle bacillus, germ of tuberculosis; Behring and Roux discovered diphtheria antitoxin; Lister and others, asepsis and antisepsis; Koller, cocaine as local anesthetic; Laveran, malaria plasmodium and time would fail me to tell of 606, Dakin's solution, rubber gloves and other discoveries and inventions that have accomplished so much for the prevention and cure of disease.

Preventive medicine is now one of the most important branches of science and is doing much to lengthen the life of our generation. Johns Hopkins, Harvard, Columbia and others now have schools of public health as distinct university courses leading to the degree of doctor of public health, Dr. P.H. The Johns Hopkins recently received a gift of \$6,000,000 for this department from the Rockefeller Foundation.

Now let us consider some of these discoveries. When the writer began to study

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medicine hydrophobia was treated by the actual cautery a red hot wire being run into the bite, or possibly a mad stone applied. Twenty-five per cent of all bitten on face or hands developed hydrophobia and died. In 1900 the writer, in conjunction with Dr. J. N. Brawner of Atlanta, established the Georgia Pasteur Institute and we treated over 500 cases before the State Board of Health took up the work, with only two deaths, less than one-half of one per cent; in other words we saved over 123 lives.

Before Koch discovered the tubercle bacillus, tuberculosis, phthisis pulmonalis, as it was then called, was considered hereditary and one whose parents had died with it was believed doomed to an early death from the same dread consumption. Here is the definition given in an old practice of medicine, "Tuberculosis may be pathologically defined as a constitutional tendency in the formation of defective blood plasma which instead of producing nutrition forms in many organs aborted Blastema which accumulates as a deposit called a tubercle and the process of tuberculization." Prognosis. "In no case can recovery be anticipated, but it does occur as every physician must have witnessed." "Duration varies greatly being least in youngest subjects; eighteen months to two years is the most frequent period." What a different picture Osler paints in his last Practice of Medicine. He gives five classes of tuberculous patients, three of whom make complete recoveries, one apparent or arrest, and only one that seems to be fatal regardless of treatment. The treatment used to be cod liver oil, creosote and an immense amount of medicine that completely upset the digestion. They kept the patient in a warm room protected from drafts, even putting sand bags at foot of door to keep cold air from feet. Now we give the patient very little medicine and all the nourishing food and fresh air he can stand, and he sleeps out in the open regardless of weather. See the results in 1880, the death rate was 259 to every 100,000, while in 1920 it was 113, considerably less than 50 per cent. If we can keep up

the good work, in the next century, deaths from tuberculosis will be as rare as they now are from smallpox.

Diphtheria antitoxin has armed childhood against one of its greatest foes. In the last lecture the writer heard on diphtheria before he received his degree, the lecturer said he had treated ten cases of diphtheria, of which eight died and two recovered. Some claimed to cure 60 per cent, but he did not believe it. The next lecture was at the Johns Hopkins in 1895, after the discovery of antitoxin and the figures were reversed. He had treated ten cases, eight had recovered and two died, one of the fatal cases was not treated until the third day. Now the mortality from diphtheria where antitoxin is used on the first day is less than 5 per cent.

Before leaving Baltimore the writer provided himself with the antitoxin outfit, a bunglesome old syringe that I have here. In the fall of 1896 and spring of 1897 there was quite an epidemic of diphtheria in Troup county and the mortality ran true to from 60 to 80 per cent. After one child in a physician's family had died with it this old syringe was used on the second, who made a prompt recovery, and from then on it was called into frequent use and the mortality fell to 10 per cent. Only two on whom this old syringe was used joined the angelic host. What would you think of "Laudable Pus," following a successful amputation of forearm? Yet that was what was expected. The first major operation the writer ever witnessed was by the elder Dr. Willis Westmoreland in summer 1880. It was removing a bullet from the tibia of a veteran of the Civil War. It was performed in a house in Gainesville, Ga. The instruments were arranged on a table and were handed to the surgeon by any of the spectators if his assistant was not convenient. Of course this wound exuded lots of laudable pus in granulating up. Serosanguinous or "purulent pus," as it was then called, was the dread of the surgeon, as it indicated necrotic process instead of healthy granulation which was promoted by laudable pus. Heal-

ing by first intention was not expected and was regarded as a happy coincident.

Abdominal surgery was only practiced by such men as Battey, Price, Kelly and a few others. People then died from cramp colic instead of appendicitis. Cocaine was first used in this country in 1884 and the writer was present and tested the first ever made in America in the laboratory of Sharp & Dohme; he also had the pleasure of witnessing one of the first operations ever performed on the eye under its influence.

The writer was present when Dr. Welch showed the first radiograph ever seen in America in February, 1896, and told of Roentgen's discovery of the x-rays the month before. He will never forget the excitement created by this wonderful discovery. A Hopkins man happened to be studying with Roentgen at the time and he hastened to send the first pictures to Dr. Welch, who is the acknowledged leader in pathology and the most beloved man in medicine alive today. About six years later 1902, came the discovery of radium by the Curies in Paris. This has similar properties to x-rays only more concentrated and convenient and can be used in places not accessible to x-rays.

As a boy the writer remembers the terror that was wont to spread among the citizens of Louisiana and the South by the announcement of yellow fever being declared epidemic in New Orleans. Immediately shot gun quarantines would be established and all communication except by mail would be stopped. This caused great hardship on those who were attempting to get away from the infected areas, but the disease spread in spite of the shot gun and thousands died annually during the epidemics. Now, due largely to the work of a Southern physician, Dr. W. C. Gorgas, late Surgeon General of the U. S. Army, this dread scourge has been practically wiped off the face of the earth.

The plasmodium of malaria has been discovered and the anopheles mosquito which is its intermediate host and sole source of infection, is being rapidly exterminated. The discovery of the bacillus of typhoid

fever and inoculation against this dread disease which is making it so rare now (only thirteen cases in Troup County last year where any good physician in active practice used to have that number annually thirty years ago) is one of the triumphs of modern preventive medicine.

Salvarsan (606) is doing much to reduce that awful syphilis, which is protean in its manifestations and regards neither age, sex, nor social standing. The latest discovery in medicine of much importance is the benefit of x-rays in diseased tonsils. This was made by the Rockefeller Research Hospital and has been proved by a number of observers. The writer had a number of patients who refused operation, and were greatly benefited by the x-ray treatment. Some of these I hope to show the society.

Time would fail me to tell of all the great advances made in medical science since I began its study.

#### Conclusions.

1st. The public has been benefited by the higher medical education.

2nd. Preventive medicine is the best investment the country can make.

3rd. Suffering has been relieved and the age of man lengthened.

4th. These advances in medicine have benefited the people more than the physicians.

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#### VERNAL CONJUNCTIVITIS.\*

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Dr. J. E. Weeks defines this disease as a "roughening and thickening of the palpebral conjunctiva, accompanied by an hypertrophy of the conjunctiva at the margin of the cornea, and the tendency to recur each year in spring or summer, when the weather becomes warm."

Opinions vary as to the etiology but the condition is believed by many to be due to a micro-organism of undetermined variety, but one peculiar to the disease. One investigator describes a bacillus resembling the pseudo-diphtheria organism. Others claim that the visible rays of short

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undulation and ultra violet rays cause the disease. Undoubtedly heat is the exciting cause. Recent experiments in the hands of Drs. Calhoun and Fort of Atlanta have attempted to relate the disease to the same exciting causes as hay fever. They have vaccinated a great many patients with pollen vaccines and have found in some cases a definite reaction. They have carried this work to the point of therapeutic administration of the vaccine indicated by the positive reaction. It is to be hoped their results in this way will relate the disease to a given pollen in some of the cases.

The case presented here was vaccinated with ragweed and timothy, but satisfactory results were not obtained on account of the inability of the patient to remain in my office long enough to watch the reaction. When she returned she complained of an itching of the timothy scratch. This did not occur, however, until two or three days after the vaccination and no importance was attached to the statement.

The pathological changes in the conjunctiva consist of scanty small cell infiltration and the development of papillae, particularly on the upper tarsal conjunctiva. The hypertrophied tissue at the margin of the cornea consists largely of epithelium on an elevated base, which appears to consist of a scant hyperplasia of connective tissue, dilated lymph spaces and hyaline granules.

Young children are most frequently attacked with this disease, particularly those living in country districts. Men are more subject to it than women. Fuchs characterizes the disease as being very rare. I have only diagnosed two cases during my practice. Most of these patients simply learn that they are afflicted with some "eye disease" each summer and nothing seems to benefit them, consequently they treat themselves.

The disease undoubtedly has contagious qualities, as more than one member of the same family may be affected. Both eyes in nearly all cases are involved.

The patient suffers from a severe irritation as of "sand in the eyes," photophobia, distress upon use of the eyes, burn-

ing, and particularly itching. There is an increased lachrymation and the presence of a mucoid discharge upon rising in the mornings. The conjunctiva, ocular and palpebral, always shows the effect of rubbing to relieve the itching. There is a redness and a dilatation of the vessels of the conjunctiva. The tarsal surface of the upper lid often shows uniform elevations similar to those of trachoma and follicular conjunctivitis. In another group of cases a circular ring of inflammatory tissue looking very much like the pannus in trachoma will show around the limbus. The third or mixed group may show both ocular and palpebral symptoms. All books describe an appearance of the palpebral conjunctiva as if skimmed milk had been poured over it. Most of the authors, too, will describe a velvety appearance of this membrane.

In colored persons there is a brownish, dingy pigmentation of the scleral base instead of some of the peculiar symptoms associated with it in the Caucasian.

In the case presented here today a book picture of the circular raised epithelium around the limbus will be seen. The pigmentation described above will be quite marked.

The disease appears in this locality usually near the middle of May. This year, the early spring and summer has undoubtedly caused the disease to show a few weeks earlier. It comes with warm weather and subsides when autumn appears. The disease is most severe when the weather is warmest, and will be very much relieved, following or during a cool spell in the summer. Even a heavy rain cooling the atmosphere is welcomed by a sufferer from this disease.

The diagnosis may be confounded with trachoma or follicular conjunctivitis, but the history of recurrence with intermissions of severity according to seasons should distinguish it from either.

The prognosis may be stated as good from the physician's standpoint and bad from the patient's. All authorities state that the course of the disease is from eight to twenty years. Slight opacities of the cor-

nea may remain after the disease has run its course. Likewise there may be some deformity of the lids in the cases classed as palpebral.

The treatment of this disease is unsatisfactory at best, regardless of what methods employed or medicines prescribed. The patient will have periods of severity according to weather conditions. The disease will invariably run its course throughout the summer, regardless of treatment. Any medication that will relieve the irritation is indicated. Shaded glasses, which will cut out the ultraviolet rays, may be prescribed. Some authors advise weak solutions of silver salts, others an ointment of salicylic acid, others an ichthol preparation. Radium has been used with success. Electrolysis has been employed with like reported successes. I have used in the case seen here a weak solution of acetic acid. This seems to control the itching more than anything the patient has tried. Weak solutions of adrenalin chloride have been advised. With any medication I feel that more success will be had if the patient is kept in as cool an atmosphere as possible, and with as much light cut out of the room as is practicable. Over a period of from eight to twenty years your patient's financial condition may change so that seashore or mountains may be advised. In any event all the resources of both the patient and physician must be utilized.

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### THE IMPORTANCE OF A CAREFUL STUDY OF THE ETIOLOGY IN IN- FLAMMATORY CONDITIONS OF THE EYE.\*

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Inflammation of the iris, choroid, ciliary body, and the retina may occur either singly or in combination. When the latter condition exists the name uveitis is applied and it was my first thought to discuss each of these conditions but, I found

that if I did so, my paper would be too long and have decided to limit my remarks to iritis,—its symptoms, causes, and treatment.

The structure of the iris is not unlike that of the parts just mentioned in that they all consist largely of nervous and vascular tissue. Although the layers which compose them are different in some ways, they are susceptible to the same infections and my remarks on iritis will be very largely true of the other conditions with the exception of some of the signs and symptoms.

The object of my paper is to show that uveitis is a frequent complication or associate of various commonly seen constitutional and local infections and I shall endeavor to show the importance of a careful examination into the etiology of such cases. I shall take up later the treatment of iritis and will place particular emphasis on the fact that success in the treatment of these conditions will largely depend upon the correct diagnosis of the underlying cause.

Iritis is perhaps the most common of the inflammations of the uveal tract and is among the most painful of eye inflammations. It usually sets in with a feeling of discomfort in the eye and this soon becomes an acute pain radiating to the forehead and temples. The pain is frequently so severe as to require codein or morphine for relief. The eye is reddened, with the congestion most pronounced around the cornea. This may extend sufficiently to simulate a conjunctivitis, as far as redness is concerned. There is a marked photophobia, and lacrymation is abundant if the eye is exposed to light. On examination, we will notice a contraction of the pupil and the reaction to light is either sluggish or entirely absent. If the condition has progressed very far, we may find the iris discolored and perhaps some exudate in the anterior chamber. Exudates are usually present on the anterior and

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posterior surfaces and margins of the iris. The exudates are glue-like in character and this very often causes adhesions between the iris and lens. On attempted dilatation of the pupil, we often find it irregularly shaped and it is not uncommon in neglected cases to find the iris adherent to the lens about its entire circumference. In severe cases, the entire pupil may be occluded by the exudate and in cases of this severity, vision may be entirely lost. The exudate may extend into the anterior chamber or into the vitreous. The impairment of vision depends upon the amount and location of the exudate. Sometimes, but rarely, we see the so-called "quiet" type of iritis in which there is little pain or redness. I shall mention a case of this type later.

The pathological changes in iritis are due to vascular changes and an outpouring of leukocytes and red blood corpuscles.

### The Etiology of Iritis.

Iritis may be caused by many factors and to this fact is due many failures in the treatment. Among the frequent causes of iritis are syphilis, gonorrhea, pyorrhea alveolaris, infections of the nasal accessory sinuses, and intestinal autointoxication. Lues is the chief factor in 50 per cent of the cases. The congenital form rarely causes iritis except as a complication of interstitial keratitis. The majority of the "quiet" cases are due to syphilis.

Vetch seems to have been the first to recognize the relation between iritis and gonorrhea. Mackenzie twenty years later ridiculed the idea but there is now no doubt but that inflammation of the iris is by no means a rare complication of gonorrhea. It is usually associated with arthritis in the chronic or latent cases of gonorrhea. Mosso reported such a case in 1912. His patient had had an attack four years previous to a second attack and this second attack was followed in four or five weeks by a typical attack of iritis. Shumway reports a case of iritis associated with a gonorrheal arthritis both of which were relieved by four injections of gonorrheal vaccine. Cobbledick mentions a case of iritis

in a patient who had had gonorrhea thirty years previously. The iritis was promptly relieved by treatment with the Neisser vaccine. Later, he reported nine such cases in each of which he found the gonococcus in the urine and all of them were quickly improved by vaccine. He concludes that many cases of rheumatism are caused by a latent infection of gonorrhea.

Shumay reports an interesting case which apparently shows the value of the vaccine. He had a case of arthritis and iritis which he was treating. The vaccine was scarce and he could get none. After he had been treating the arthritis a month, the iritis developed. Nine days' local treatment had apparently done very little good. He then got some vaccine and gave an initial dose of one million. The next day the iritis was better and a second dose three days later was followed by a complete cure.

About 25 per cent of the cases of iritis are classified as due to rheumatism but with improved methods of diagnosis we are not content to stop with the diagnosis of rheumatism and can in many cases find a definite cause for the arthritis. Improvement in the arthritis is usually followed by a relief in the symptoms of the iritis. The taking of blood cultures, Wassermann, and the x-raying of teeth and the accessory sinuses of the nose are productive of much information that would otherwise remain hidden or be merely surmised.

Irons, Brown, and Nadler have produced iritis in rabbits by intravenous injections of streptococci isolated from a focus of infection in a patient suffering from iridocyclitis. Rosenow injected animals with streptococci from various sources and produced many eye lesions.

Toxemic iritis claims a fair percentage of the so-called "idiopathic" cases of iritis. Yeld in 159 cases of primary iritis found 10 per cent due to toxemic conditions. Paterson reports a case of bilateral iritis in a boy who had lobar pneumonia and otitis media. Guibert saw an iritis in three cases of gastro-intestinal intoxication, all

three of which were promptly cured by the use of lactic acid ferments. Brawley reports a case of iritis due to toxic products of disturbed metabolism which improved promptly under appropriate systemic treatment.

Goulden believes that infections of the teeth and tonsils are frequent causes of inflammatory conditions of the eye and, frequently, of general sepsis. He reports thirteen such cases. Traumatic, tuberculous, and malarial iritis are indicated by their names.

Butler, in the *British Medical Journal*, discusses the various causes of iritis and comes to the conclusion that 25 per cent are due to lues, only 5-6 per cent rheumatic and that in 30 per cent of the cases no cause could be found. In 1909, Jennings and Hill reported on five hundred cases of iritis from the records of the Wills Eye Hospital. They found 61.4 per cent due to syphilis, 25 per cent to rheumatism, 5.2 per cent to gonorrhea, and the balance due to various causes. This was before attention had been directed to the frequency of oral infection and would not, I believe, be true of a similar number of cases today.

Irons and Brown, of Chicago, have studied the subject carefully and their percentages are more nearly accepted now. Careful attention was given to the history and a complete examination was made for syphilis, tuberculosis, gonorrheal infection, and infections of the teeth, tonsils, sinuses, prostate, and other possible foci of infection. Wassermann tests were controlled by two laboratories, complement-fixation tests for gonorrhea, and x-rays of the teeth and sinuses were made. Whenever there was a suspicion of tuberculosis, x-rays of the lungs and the tuberculin test were made. Cultures were made from the tonsils, sinuses, and prostate.

After a complete examination had been made, measures were taken to remove all foci of infection. Thus they were able to draw some very definite and logical conclusions. When only one infection was found and it appropriately treated, many

cases of chronic or intractable iritis were cured rapidly. They were usually able to decide as to which of the associated infections was responsible for the iritis but in 17 per cent they were unable to decide and such cases were classified as "combined infections."

In one hundred cases of iritis, they report syphilis in 23 per cent, gonorrhea 9 per cent, tuberculosis 8 per cent, dental infection 18 per cent, tonsillar infection 16 per cent, sinus infection 3 per cent, genitourinary (non-venereal) 3 per cent, other infections 2 per cent, no cause found 1 per cent, and combined infections 17 per cent. I wish to cite a case which comes under the last and was also of the "quiet" type.

A man thirty-six years of age consulted me because of some discomfort in his right eye. There was a very slight congestion of the right eye at the sclero-corneal junction but this was so slight that I regarded it very lightly. His vision was 20/20 in both eyes but the right eye was not quite as distinct as the left. His pupils were normal in size and reaction and the fundi normal. His refraction under homatropine gave him a spherical correction of 0.25 cy. 0.50 ax. 90 in each eye. I prescribed glasses and felt that his trouble was corrected. I did not see him again for several months when he reported that the glasses had been of some benefit to him but that his eye seemed to be getting back again to the same condition.

A careful examination showed that the reaction of the right pupil was not nearly as quick as the left. There was a slight circumcorneal congestion and when his pupil dilated there was a slight irregularity. I found that he had three abscessed teeth, a positive Wassermann, and bad tonsils. His teeth were pulled and anti-syphilitic treatment given along with the local treatment for iritis. There was practically no change after three weeks and his tonsils were then removed with a cure in about a week. This case demonstrates the importance of a thorough examination. I felt sure that between his teeth and syphilis, we were certain to get results but we did



not until another focus of infection had been eliminated.

Iritis may be easily confused with acute conjunctivitis by one not familiar with the condition. Iritis is much more painful, the congestion is most marked around the cornea, and the photophobia is much greater than in conjunctivitis. In iritis, the pupil is affected in size and reaction and sometimes the iris is discolored. None of these is seen in conjunctivitis. The subjective symptoms of pain, photophobia, and diminished vision are slight or absent in conjunctivitis but marked in iritis.

Acute glaucoma is sometimes mistaken for iritis. This is of importance since the treatment for the two conditions is radically different. In iritis, the pupil is small, in glaucoma large. In glaucoma the patient is usually over forty-five years of age, in iritis usually younger. The tension is usually higher in glaucoma than in iritis and the cornea is frequently steamy in appearance in glaucoma.

The three cardinal considerations in the treatment of iritis are:

1. To keep the pupil well dilated.
2. To find the cause.
3. To relieve the pain.

Atropine is used to dilate the pupil. Dionin is used to increase the reaction and also for its analgesic effect. Hot applications add to the comfort and hasten the cure. The patient should avoid the light and wear smoked glasses whenever he goes into a bright light. Aspirin, codein, and even morphine may have to be resorted to in order to lessen the pain. Leeches or cupping the temple relieve the congestion of the eye to an appreciable extent if used.

I have tried to emphasize the fact that iritis may be the result of any one or more of several conditions and the treatment is never really complete until the etiology is determined and appropriate measures taken.

In syphilis, the arsenical preparations are given in conjunction with potassium

iodide and mercury. Gonorrheal vaccine is of decided benefit in those cases due to an infection of that character. Tuberculin is thought to help in cases of tuberculosis.

At first glance, one might consider a paper of this type out of place before a body of men, the majority of whom are not particularly interested in diseases of the eye but most of you are called upon not infrequently to treat a reddened, painful eye and it is very important for you to initiate the proper treatment if you treat it at all. It has fallen to my lot within the last sixty days to remove an eye which was lost because atropine was used in a glaucomatous eye and in the same period I have seen an eye hopelessly damaged because the doctor thought he was treating pink eye when he had a bad case of iritis. He later tried to dilate the pupil but it was too late and even atropine powder was powerless to break the adhesions.

I wish to re-emphasize the following conclusions:

1. That inflammatory conditions of the eye, of which iritis may be considered a type, are practically always secondary to some other disease or infection.
2. That while local treatment is always necessary, no treatment is complete unless the cause has been found and properly treated.
3. A reddened, painful eye may be one of several conditions, each of which has its particular treatment and a confusion of the diagnosis may result in an impairment of vision even unto the loss of an eye.

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## THE ENTEROPTOTIC ABDOMEN; DEVELOPMENTAL FACTORS AND TREATMENT.\*

John B. Fitts, M. D.  
Atlanta, Ga.

The title of this paper is used advisedly to adequately cover certain conditions that should be considered only in the light of the whole. Usually such conditions appear in the literature under such titles as, Glenard's disease, Visceroptosis, Enteroptosis, Gastropptosis, Hepatoptosis, Nephroptosis or Coloptosis. Our perspective on some of the above affections has possibly been too narrow. Now, one is less apt to consider these cases as isolated entities, but as a part of a general constitutional diathesis, influenced by certain anatomic and physiologic factors. Therefore to express a broader concept, I use the term Enteroptotic Abdomen. Interest in this condition was first stimulated by Glenard in 1881 and by the German workers Landon, Leube, Ewald and others. Glenard's original view was that enteroptosis was a sharply characterized substantive disease. This view was not generally accepted, but was thought justifiable at the time. He attributed the symptomatology to a downward displacement of the colon, particularly the right transverse portion. He was not inclined to take into consideration certain skeletal mechanics, flaccidity of the abdominal wall and loss of intra-abdominal fat.

Landeau, Meinert and others emphasized tight lacing, loosening of ligamentous attachments and the descent of one or more organs. In 1895 Stiller suggested the idea that enteroptosis was to a certain extent, a stigma of degeneration, citing such accompanying features as the imperfect cartilaginous attachment of the 10th rib, the characteristic body form, the fragility of general make-up and the laxity of body tissue. One clinician has said that we should start back in the 3rd and 4th generation to handle these cases. Hemmeter in 1910 in an article read before the American Gastro-Enterological

Association regards enteroptosis as a general osseus, visceral and nervous abnormality. "That it is a pathologic interbreeding product of some inferior race that has become engrafted upon the Caucasian race and is now perpetuated by heredity among the Aryan race." That the enteroptotic constituted a hybrid or under race; produced from a mixture of two species, namely a superior and inferior species, far back in the history of the race during prolonged migrations, marches, wars and exposures to hardship and compulsory vertical position for long periods. In 1910, Goldthwaite awakened interest writing from the orthopedic standpoint in an article on, "The relation of posture to human efficiency and the influence of poise upon the support and function of the viscera." This has stimulated interest in a new viewpoint which is of great importance.

**Incidence of Enteroptosis:** This leads us into that large class of individuals exhibiting the enteroptotic habitus. Einhorn's figures show that it occurs in 25 per cent of women and 6 per cent of men with digestive disturbances. A smaller group of cases may be put under the following headings: Faulty posture type, malnutrition type, post-parturient and post-convalescent type. Levy and Kanter in a study of a series of 898 patients with gastric, cardiac, nervous and renal symptoms, found 417 or 46 per cent with ptotic signs. The sex incidence is predominantly greater in women due to factors which will later be mentioned.

**Developmental Factors:** The earmarks of habitus enteroptoticus are familiar to you. The long thin face, deep-set eyes and dark circles beneath, long neck, frail and light body weight, fine hair, slender hands. The thorax is long and shallow with very oblique ribs and narrow epigastric angle. The spinal posture may be of the lordotic type or the normal dorsosacral curve may be obliterated. The pelvis is relatively capacious and is characteristic in its basin-like form and proportions. The viscera follow and adapt themselves to this form

\* Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



of topography. The body musculature is frail and attenuated and the connective tissues and ligamentous attachments lax. Therefore one must look on the ptotic abdomen as a part and product of a general process. In these congenital types, one notes the smallness of the thoracic cavity with its lowered diaphragm, the short abdomen and the wide and capacious pelvis frequently containing the lower portion of the stomach, ileum and colon, which in turn encroaches on the territory of the pelvic organs.

In the growing child, faulty feeding, malnutrition and faulty posture form a triad of important developmental factors. The pediatrician of today is doing most effective work in combating undernutrition and bad body mechanics, thereby lessening the number of future adult enteroptotics. Many children are seen with faulty body posture, common examples being cases with head down and forward, shoulders drooping forward, flattened chests and protuberant abdomens; thus producing contracted chests, lowered diaphragms and flaccid abdominal walls which drops and presses the viscera downward.

Dickson writing on this subject of posture in children gives statistics from the out-patient department of orthopedics of the University of Pennsylvania in which 20 per cent of children under 12 years of age had some form of postural defect. In these uncorrected ptotic types, early visceral ptosis appears with gastro-intestinal symptoms. In the adult of today, badly poised bodies are extremely common. The so-called "debutante slouch" in young women is a common example. This posture is not only affected generally but actually cultivated and is already producing much harm. During the recent war preparations, Adjutant General McCain issued an official message to the effect that the greatest defect in the aspirants for the officers training camps was a slouchiness in body carriage, which should long since have been corrected in earlier years. In the ptotic abdomen most

important is proper poise of the spinal column. With the preservation of the normal spinal curves, the proper position of the thorax and diaphragm, the abdominal muscles can then exert the desired and necessary support of the abdominal viscera. Common posture defects are the resting of the body weight on the heels instead of the balls of the feet, resulting in a forward thrust of the head, flat chest and protuberant abdomen. Another defect is seen in sitting with the pelvis rocked back and chest bent forward on the abdomen. Another, the lordosed spine exaggerates the dorso-lumbar curve and crowds the abdomen forward.

These faulty postures encourage relaxed abdominal musculature inviting a sagging viscera with a resultant sluggish splanchnic circulation. Goldthwaite has called the attention of the profession to these facts for some years and his article on the relation of posture and poise upon the support of the viscera is illuminating. He emphasizes the fact that the effect of posture upon the abdominal viscera is of even greater importance than with the viscera of the thorax, since in the abdomen support is furnished largely by soft structures which are more easily effected by stasis, strain and weakness.

A common defect is seen in the obliteration of the normal dorso-lumbar curve. The axis of the pelvis is here changed and a downward thrust of the viscera into the pelvis is produced. The tipping of the pelvis backward and downward throws the upper body forward. The weight of the viscera is more anterior than normal and the anterior abdominal muscles are necessarily relaxed. The axes of abdomen and pelvis more nearly approach and the two cavities are nearer together. These examples, above described put an added strain on and are a source of wasted energy which these individuals can ill afford to lose.

The Factor of Subnutrition: Enteroptosis frequently develops after loss of weight and flesh. That intra-abdominal fat is necessary in visceral support is obvious.

In conditions of malnutrition with enteroptotic symptoms an increase in body weight is always helpful. In fact in some cases it is the one thing necessary to relieve symptoms.

It is reasonable to believe that symptoms associated with enteroptosis are derived from a decrease in normal intra-abdominal pressure. This intra-abdominal pressure may be defined as that tension in the abdominal cavity, existent within and without the contained viscera, maintained by the abdominal muscles in front, the diaphragm above and the muscles of the pelvic outlet below and influenced by nerve stimuli, spinal posture and other indirect causes.

Decreased intra-abdominal pressure is not only productive of gastro-intestinal symptoms but of circulatory and nervous as well. There is present abnormal digestive secretion and lowered motility. Dilatation and stasis of the splanchnic circulation exists and many reflex nervous symptoms of visceral origin, and withal a general bodily and muscular fatigue. The minor factors in the production of ptosis are, abdominal flaccidity following childbirth, and following the removal of abdominal tumors, and from the effects of tight lacing. These causes are often over emphasized and given first place when in reality they are only contributory factors to other more fundamental causes.

**Symptomatology:** These cases in a great many instances are entirely free from symptoms and might remain so, if removed from strain, stress and the over-harassment of modern day life and the influences that tend to break down a limited physical capacity. The fact that anatomically, ptosis exists does not imply symptomatology at all. As long as the abdominal viscera function properly and as long as that important factor of adequate intra-abdominal pressure is maintained, they do well. Briefly a syndrome frequently formed is, low blood pressure, lassitude, mental depression, nerve irritability, gaseous distension of the abdomen,

distress and fullness after eating and an atonic type of constipation.

**Treatment:** A most thorough general survey of these patients must be made and successful treatment requires patience and persistence by both patient and physician. Attention to this subject has a place in preventive medicine. As previously stated the pediatrician is correcting malnutrition in the child. The orthopedist is showing us the importance of postural defects. The gynecologist in correcting pelvic conditions enable many enteroptotic women to more successfully overcome troubles that are incident to them. So it is seen that the internist does not stand alone in the matter of treatment. In the ptotic patient focal infection should be sought and eradicated as these individuals are often of low resistance and peculiarly non-resistant to the chronic infections.

Our main efforts should be directed toward increasing the lowered intra-abdominal pressure which is accomplished thru posture, nutrition and the development of the anterior abdominal wall. First correct the two main spinal defects, namely:

(1) The exaggerated dorso-lumbar curve, producing the so-called aldermanic abdomen.

(2) An obliteration of the dorso-lumbar curve, resulting in the drooping forward of the head and shoulders and the infringement of the thorax on the abdomen.

(3) Proper relationship of pelvis to spine, correcting the backward tilt.

To improve body nutrition, one should have an idea of the digestive capacity of these patients. The state of gastric secretions and the gastro-intestinal motility should be known from test meal and x-ray studies. A generous and ample diet to the limit of their ability to handle it. The ptotic patient tolerates a high carbohydrate intake best and fats least. There should be three regular meals daily and inter-nourishment additionally except in the cases of marked gastric atony. Also fluids should be restricted when the latter condition accompanies the ptosis. Rest in the recumbent position after meals should



be insisted on. It is not too much to say that if a gain of 15 to 30 lbs. is accomplished, complete relief of symptoms results.

**Development of the Abdominal Muscles:** Here the one most effective measure that can be used is to persuade the patient to keep the abdominal muscles in a state of voluntary contraction at all times. Difficult at first, but improvement so quickly follows, that it cannot be too strongly insisted on.

A system of graduated exercises are very helpful. Such as the various body bend types, forward, backward and laterally. The setting up exercises of the army covers the condition admirably.

**Abdominal supports:** For temporary relief, straps and supports are a necessity. In applying these, pressure is to be exerted upward and backward. The good effects derived are obtained from increasing intra-abdominal pressure. The adhesive plaster strapping is the most effective in the very thin individual and should be the first type of support employed. There are many varieties of corsets, bandages and supports on the market. The important points to be observed are that they should fit tightly and snugly over the lower abdomen. They should not be too yielding in front and should not uncomfortably bind the hips. Usually some fixation about the thighs are necessary to prevent a tendency to slip too far upward on the abdomen.

The Curtis support in which the pressure in front is maintained by easily adjusted steel side supports is useful in some cases. The Spencer corset in which an attached band is applied within a proper fitting corset has some good features. There are many other types of supports which might be chosen suitable to the individual case.

The Faradic and Sinusoidal electric currents are useful in restoring tone to flabby abdominal muscles and should be given for

a period of twenty minutes on alternate days.

## CONCLUSIONS.

1. The enteroptotic is capable of enjoying normal health and the existence of the ptosis should not be over impressed upon him.

2. Developmental factors in the production of ptosis are faulty body posture, sub-nutrition and decreased abdominal pressure.

3. The importance of correcting defects in the growing child which will lessen the number of later adult enteroptotics.

4. Treatment lies in establishing correct body posture and poise—correcting states of malnutrition—systematic physical exercises and the application of abdominal bands and supports to suit the individual case.

436 Peachtree St.

## DISCUSSION:

Dr. W. R. Dancy, Savannah:

The gastro-enteric feature is of particular interest to me. In brief, there are two factors that enter into the discomfort from the stomach itself. One is the dragging, and the other is the change that is undergone in the stomach from the retention of food and altered secretions. The effects of these you can readily understand. In practically all of these cases we find a retention of at least six to eight ounces, varying in amount, depending upon the tone of the stomach. As to peristalsis, the muscular tone, in these cases is not always bad—in many I have found the tone to be pretty fair; but later the tone does become worse, the musculature weaker, and the retention greater. This is readily understood when you remember that the majority of these stomachs are of the fish hook type, and the stomach must pump the food uphill. As to the secretions of the stomach, these are at first increased, due to the irritability of the food retained in the stomach. Later they decrease, and in the later stages we find frequently an achylia. In the co'on we find such a marked ptosis and dilation that the colon is folded up into a small mass, in the pelvis, and you can readily appreciate that the propulsion of waste products through it is very poor, and the patient suffers from an atonic constipation which emphasizes the toxemia. We can get a toxemia from the retention of waste products in the colon, as well as from foods which are not properly digested.

Dr. Fitts, closing the discussion:

I did not mention the operative measures for enteroptosis, because I think the general opinion is that these cases do best under medical treatment for upbuilding the general system, improving the general condition of the patient, and the correction of local abdominal defects.

**WANTED**—Will pay 30c per copy for the following numbers of the Journal of the Medical Association of Georgia: Jan., Feb., 1917; Aug. and Oct., 1918; May, Aug. and Oct., 1919; Jan., 1920. Journal.

## SURGERY OF THE ACUTE GALL BLADDER.\*

W. A. Selman, M. D.  
Atlanta, Ga.

In choosing the above title, I have been prompted by the desire to sound a note of CONSERVATISM in dealing with acute inflammatory conditions of the gall-bladder.

By conservatism, I do not mean delay in action, once the diagnosis is made, for I regard this a surgical condition that should be dealt with surgically.

It is pre-supposed that all clinical and laboratory tests that bear upon the case have previously been made for upon these we often change our mode of procedure. Often a careful history of the case and a routine physical examination will reveal some cause remote from the gall-bladder that was the original focus of infection and which might well receive attention at the same time. Especially is this true of the appendix.

Having decided upon an operation, a most vital question now presents itself: WHAT ANAESTHESIA WILL CAUSE THE LEAST SHOCK TO THE PATIENT, AND AT THE SAME TIME GIVE SUFFICIENT RELAXATION AND ANALGESIA FOR THOROUGH WORK? Personally, I prefer novocaine anaesthesia locally, assisted by gas-oxygen when necessary on account common duct stones, adhesions, or any tension on the peritoneum. However, more often than not, this assistance is not called for, especially if the patient has been previously narcotized by morphine and scopolamine.

Ether anaesthesia may produce a more complete relaxation, but is not borne well where there exists an acute hepatitis or nephritis.

When the gall-bladder is exposed, then, and not till then—and often not even then—do we know the safest procedure. It appears from the medical literature of the largest surgical clinics that total ablation is the method of choice when possible. However, this is attended by a higher im-

mediate mortality than the more conservative operation of cholecystostomy. In chronic or sub-acute cases, the gall-bladder can usually be removed or drained with temporary improvement. Cholecystectomy gives fewer recurrences. However, in acute cases, the infection is not confined to the gall-bladder alone, but already the lymphatics are infected, and not infrequently acute hepatitis is also present. Here, a cholecystostomy usually means a subsidence of symptoms; whereas, a cholecystectomy may mean a mortality.

It is a pride and a satisfaction to have done an operation well, but a joy and a consolation to believe you have saved a human life.

### ABSTRACT.

Curtis C. Mechling, M. D., F. A. C. S.  
Pittsburg, Pa.

#### A Case of Rectal Cancer Cured With Radium and Operation.

The writer said that he felt that, from his own experience and from observation of the work of others, the results obtained from the use of radium in cancer of the rectum are only partially favorable, and will not compare with those obtained in the cure of superficial malignancy. Accurate contact of the radium is evidently a sine qua non, and is almost impossible in the rectal ampulla. Pennington's shotted seton and Quick's rubber rectal bougie are attempts at accurate fixation. Seven cases of cancer of the rectum known to the writer, were treated and with no benefit, death probably having been hastened. One two-year cure was obtained in a case of anal cancer, where accurate contact was maintained for desired periods by packing the element in position with gauze. He said that radium should be used only by surgical specialists, since definite anatomical knowledge is required, and cited gynecological reports as proof of his statement; and he recommended colostomy in all cases, since the proctitis, resulting from radium applications, is rendered more tolerable, and since stricture is certain to follow curative doses.

\* Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****GOOD HEALTH WEEK.**

Keeping workers from the scrap heap by the early discovery of tuberculosis and other diseases which are coming more and more to be recognized as industry's greatest foe, by providing proper working conditions and by educating working men and women to the importance of personal hygiene will be among the points to be emphasized during Good Health Week, which is to be observed throughout the United States October 23-30.

The intimate relation which man's health bears to labor turnover and to accidents and the part which ventilation, sanitation, and cleanliness play in increasing the health and efficiency of workers are subjects which are receiving special atten-

tion from the national executive committee and its advisory council in charge of the promotion of Good Health Week. That there is a growing appreciation of the fact that poor ventilation, poor sanitation, and poor lighting mean decreased production is evidenced by the manner in which large employers of labor are giving active co-operation in the educational movement whose purpose is better health.

Dust hazards, the diseases in which they are a factor, their costliness to industry, and the importance of handling them properly and of removing the dust as nearly as possible at its source are being given special consideration. Effort will be made both to call the attention of employers to the importance from the cold business standpoint of dollars and cents of improving the ventilation of factories and workshops where it is not satisfactory and to impress working people with the urgency of having plenty of fresh air in their homes, especially if they cannot secure it during working hours, and of making sure to have some out of door exercise every

It has been said that although man prides himself on being the most intelligent of all animals, he needs the greatest guidance for his safety. Good Health Week is an effort to place the guidance of the best and the most scientific knowledge of the times within his easy reach.

**REORGANIZATION OF THE TENTH DISTRICT SOCIETY.**

A great reorganization meeting of the Tenth District Society was held at Augusta on October 11th. All physicians of the district were invited to be present. A special feature of the meeting was a series of lectures and clinics at the University Hospital. The President of the Association, Dr. J. M. Smith, of Valdosta, was present and delivered a masterful address on the value of organization and co-operation.

The following program was carried out:  
 9 to 10:00 A. M., Registration.

10:00 to 10:30 A. M., Obstetrics: Essayist: Dr. Geo. A. Traylor.

Discussion: Dr. A. J. Kilpatrick, Dr. James Akerman.

10:30 to 11:00 A. M., Pediatrics. Essayist: Dr. Wm. A. Mulherin.

Discussion: Dr. E. E. Murphy, Dr. W. J. Cranston.

11:30 to 12:00 M. Surgery. Essayist Dr. R. L. Rhodes.

Discussion: Dr. C. W. Crane, Dr. G. T. Bernard.

12:00 to 1:00 P. M., Pediatric Clinic (University) Dr. N. M. Moore.

1:00 to 2:00 P. M., Luncheon.

2:00 to 3:00 P. M., Inspection of Plant.

3:00 to 4:00 P. M., Surgical Clinic, Dr. W. H. Goodrich, Dr. C. W. Crane, Dr. W. C. Kellogg.

4:00 to 5:00 P. M., Medical Clinics, Barrett I, Dr. V. P. Sydenstricker; Barrett II, Dr. W. R. Houston; Lamar I, Dr. E. E. Murphy; Lamar II, Dr. J. H. Butler.

5:30 P. M., Election of Officers at Carmichaels.

6:00 P. M., Barbecue at Carmichaels.

The following officers were elected for the ensuing year: President, Dr. Geo. A. Traylor, Augusta; Vice President, Dr. C. S. Jernigan, Sparta; Secretary-Treasurer, Dr. S. J. Lewis, Augusta.

The next meeting of the Society will be held at Milledgeville. The date will be announced later.

## LETTER FROM DR. MULHERIN TO PHYSICIANS OF TENTH DISTRICT.

Augusta, Ga.

Dear Doctor:

You will miss something worth while if you do not attend the big reorganization meeting of the 10th District Medical Society to be held in Augusta on the 11th of October, 1922.

The Richmond County Medical Society will act as host. This society earnestly desires that every physician (member or non-member) in the 10th District to be present.

The program will be an exceptionally good one. Clinics in the University Hospital and the Children's Hospital will be its

special feature. A buffet luncheon at noon and an old time Georgia barbecue at Carmichael's, will be an added attraction.

As Councillor of the 10th District permit me to respectfully, but earnestly, request that you lay aside your practice on this day and attend the meeting. My reasons for so requesting are:

1. The 10th District is one of the poorest organized districts in the State. Therefore natural pride should demand that you be present.

2. In the 10th District we have one of the two medical centers of the State (Medical Department of the University of Georgia) and the finest bunch of physicians to be found anywhere. We should, therefore, be not only the best organized, but the most active district in the State.

3. Proper organization will require the active interest, and the proper consideration of every physician in the 10th District.

4. It is your duty, as a physician, to get in the game to make the old 10th what it should be.

Begin at once to make your arrangements to attend. Also get busy and take a personal interest in properly organizing your County Society. I am looking forward with pleasure to seeing you in Augusta on the 11th of October next—a profitable and enjoyable day awaits you.

Sincerely yours,

WM. A. MULHERIN,

Councillor of 10th District.

The many friends of Dr. M. F. Haygood, who for many years has been Director of County Health Work for the State Board of Health, will be delighted to know that he has been selected by the International Health Board as a beneficiary under their scholarship system. Very few men get this distinction.

Dr. Haygood has been assigned to Johns Hopkins, where he will be under the best teachers in America until he can complete the entire Post Graduate work in Public Health and Preventive Medicine.



### The Ninth District Medical Society.

The first semi-annual meeting of the Ninth District Society was held in the court house at Toccoa in March, last. Dr. H. E. Crow, being absent, Dr. J. K. Burns, of Clarksville, presided. Dr. Crawford spoke words of welcome, response by Dr. Harden. Rev. Williams offered the invocation.

Papers were read by Drs. Boland, Whelchel, Sanders, Bowdoin, Abercrombie, Bunce, Glidden, Ayers and Hubbard, the latter being a memorial to Dr. Nelms, our lamented vice-president. Dinner was served at the Swift Hotel. The session was interesting throughout.

Officers for the ensuing year are as follows: President, Dr. J. D. Mauldin; vice president, Dr. J. R. Simpson; secretary-treasurer, Dr. J. C. Bennett. The annual meeting was held at Commerce as the guests of the Jackson County Medical Society on the third Wednesday in September.

### Third District Medical Association.

The thirtieth semi-annual session of the Third District Medical Association was held with Terrell County Medical Society, at Dawson, Ga., June 14th, 1922, with about fifty-five physicians, their wives, sweethearts and friends through the district present.

Diseases of children being the chief topic, the following papers were read, to-wit:

"Control of the Communicable Diseases of Childhood," Dr. M. F. Haygood, Division on County Health Work, State Board of Health, Atlanta, Ga.

"Artificial Feeding of Normal Infants," Dr. R. R. Holt, Parrott,

"Bacillary Dysentery," Dr. Jno. T. Moore, Sycamore, Ga.

"Diagnosis of Acute Conditions in Children, Dr. Steve P. Kenyon, Dawson, Ga.

"Foot Deformities and Their Prevention in Children," Dr. Theo. Toepel, Atlanta, Ga.

At 7:30 p. m. all were invited to the Ford Hall, where a sumptuous banquet was given by the Ladies' Club of Dawson, which was overwhelmingly enjoyed by every one. Music was furnished by the Terrell County Orchestra.

### Second District Medical Society.

The Second District Medical Society held its semi-annual meeting at Moultrie, August 11th, 1922. A splendid attendance was present and an enthusiastic program was rendered, which is proof of the continued progress and scientific attainment of this district. In addition to the usual order of the meeting a most delightful entertainment was given by the Moultrie Medical County Society. Dr. J. M. Smith, President of the State Association, was present and rendered a very interesting address. The regular meeting dates were changed from February and August to second Friday in March and September. Next meeting will be held in Albany.

### THE AMERICAN MEDICAL DIRECTORY.

The Biographical Department of the Association is now actively engaged in compiling and revising the material for the Eighth Edition of the American Medical Directory. The directory is one of the altruistic efforts of the Association in the interest of the medical profession as a scientific organization, which means, ultimately, in the interest of the public. It is a book in which are found dependable data concerning every physician licensed to practice medicine in the United States and Canada, all being treated alike. This note is inserted to ask the co-operation of those readers of The Journal who have changed their residence, or their office, since the previous revision, two years ago. If there is any change to be made in the data appearing in connection with your name, communicate at once with the Biographical Department of the American Medical Association.—Jour. A. M. A., Sept. 2, 1922.

**ALEXANDER RIGHTER CRAIG.**

The sudden passing of Dr. Craig is a shock that makes it difficult of realization. On August 25 he left for his annual vacation, and was spending it with his family in rural Maryland. For some weeks he had not been feeling altogether well, although he treated the matter lightly, and jokingly rejected the suggestion that it was time for him to take his vacation. Finally he got away and then, out of a clear sky, came the telegram telling of his death. The rank and file of the profession probably will never know the loss which it sustains in Dr. Craig's going. It is doubtful whether the impress he has left on the American Medical Association ever will be fully realized, except by the few who have been intimately associated with him. He was so unassuming, so modest, so free from any arrogant or dictatorial spirit, that his far-reaching influence made itself known rather by end-results than by his efforts to bring about those results. Especially valuable were his counsel and advice in the various difficult problems that would come up in matters affecting the organization. To a degree far beyond the average man he was able to see the point of view of the other fellow and, by virtue of his desire to do to others as he would be done by, frequently brought harmony out of what bade fair to be discord. He not only filled the position of Secretary of the Association, but also was the secretary and executive officer of the Council on Scientific Assembly and of the Judicial Council. In the latter position particularly his exceptional tact showed itself. By his associates at the headquarters office, Dr. Craig was loved for his gentleness and unfailing courtesy. In all the years that he was with the association, he was never known to make an unkind criticism of those with whom he was thrown in daily contact—subordinate or equal. Criticize, he could and would, when in his opinion principles were at stake, but always in a spirit of helpfulness and service. A rare type of man he was; a re-creation of the spirit of service; a giver of himself;

a man whose life was a mission; "We shall not soon see his like again."—*Jour. A. M. A.*, Sept. 9, 1922.

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**AMERICAN SOCIETY FOR THE CONTROL OF CANCER.**

The American Society for the Control of Cancer announces plans for National Cancer Week November 12-18, 1922. The progress of activities will include articles in medical and surgical journals, newspapers and other periodicals, placard posters for display in buildings, streets cars, etc., lantern slides in moving picture theaters, cancer films, scientific and public lectures in churches, clubs, schools, fraternal orders and radio demonstrations and diagnostic clinics on cancer and circulars. More effort will be put forth to make the public acquainted with the importance of the fact that cancer is a curable disease, provided seen early enough, and that it is neither contagious nor hereditary than at any time in the history of the commission.

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**DEATHS.**

It is with regret that the death is announced of Dr. Alexander Righter Craig, secretary of the American Medical Association, which occurred Saturday night, September 2, 1922, at Port Deposit, Maryland.

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**American Red Cross.**

The annual roll call for the American Red Cross in which its membership is renewed every year, will take place in the period between Armistice Day, November 11th, and Thanksgiving Day. This is the only appeal the organization makes during the year and is for the purpose of maintaining its membership at such a point as will enable it to perform those duties which are placed upon it by Congress. The roll calls, and expects your interest again this year.

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Dr. Champneys Holt Holmes announces the opening of his offices, 53 Forrest Avenue, Atlanta, Ga. Practice limited to internal medicine.



## BOOKS REVIEWED.

**Grulee's Infant Feeding.**

All that has been said of the previous editions of Grulee's *Infant Feeding*, applies to his present or fourth edition. The first was a great asset to our library, for it brought the thought of the pediatric men of the middle west to us in a concise, practical style. Those of us who have followed the work of Finklestein, Czerny and Keller, welcomed the application of their methods in this country by such men as the author. The simplicity of classification, based on etiology and symptomatology, rather than pathology, has simplified our understanding of many of the gastrointestinal disturbances of children, resulting in a more simple classification by all writers.

The fourth edition contains throughout new paragraphs, with the biographic references to the many well known writers necessary to bring this publication up to our present understanding of practical infant feeding. Chapter IV, on absorption and metabolism, has been rewritten, for great advances have been made, necessitating complete change of text. Likewise the etiology of "Intoxication" required considerable revision.

Having had the temerity to enter one of the most important, yet least written fields, "Psychology of Infant Feeding," it is regrettable that the author did not pursue this subject still further, as he could have done. His succeeding editions, we hope, will give more space to this neglected phase. By so doing, much assistance will be rendered and his personality felt. This chapter, while only six pages, well warrants the new edition.

As a whole it can be justly said that the book gives a clear working knowledge of infant feeding, its complications and the allied nutritional diseases, without the burden of theories and verbiage so frequently found in editions on this subject.

Hamilton McCarthy, M. D., Assistant Professor of Diseases of Children, Boston University.

A better society must come through better children. It is therefore the duty of society to learn how to care for its babies, and hence it is left to the medical profession to do its share toward educating the mothers of America in the care, training, and education of children, especially during the pre-school years. These few words seem to strike the keynote of McCarthy's message to the nurses, parents, and workers for child welfare in America.

He has written a few excellent chapters. The two chapters on "Child Nature: Training and Education," and "Nerves and Mind" are especially to be highly commended.

The book as a whole is written in clear style, the diction is good, and the descriptions are sure to appeal to the lay mind.

Some chapters, of course, are very much abbreviated. But since it was the writer's intention that the book be read by the public in general, some omissions may be excused.

I am sorry that the author did not deem it wise to have his book illustrated. These sometimes add much to the interest of the reading matter.

A discussion of Cardiac disease in children would probably have added much to the completeness of the book. This subject is attracting wide attention at present. The public should be made to realize the danger of diseases which are precursors of lesions of the heart.

I believe that this book is worthy of a place on the shelves of public and medical libraries, and that Dr. McCarthy's instructive little volume will be well received by the medical profession.

The MacMillan Company, New York, N. Y., Publishers. YAMPOLSKY.

**The Submucous Resection of the Nasal Septum.**—By W. Meddaugh Dunning, M.D.

This book is intended for the specialist, and is a description of the procedure fol-

**The Healthy Child From Two to Seven.**—A Handbook for Parents, Nurses and Workers for Child Welfare. By Francis

lowed by the author in a specialized form of nose surgery, the submucous resection of the nasal septum. The author has written a clear, concise, comprehensive description of the procedure from its incipency up to the present time, showing the changes affecting the posture of surgeon and patient, the manner and method of anesthetization and the use of specially designed instruments, especially the Dunning curette elevator.

The work consists of a series of articles which originally appeared in the American Journal of Surgery. They have been expanded, revised, and put in permanent form, and three chapters have been added dealing with case records, and offers in a clear and concise manner the sound principles of surgical technique of this operation based upon a thorough knowledge and practical experience of the subject.

This work gives the best description so far published on this subject; its description leaves little more to be desired. The arrangement of the ext, its brevity, and at the same time completeness speaks for its success; it is commendable not only to the specialist but can be read with interest by the general practitioner. There existed a real need for a small book of this nature, and the want has been splendidly supplied.

Surgery Publishing Co., New York, N. Y., Publishers.

LOUIS C. ROUGLIN, M. D.

#### BOOKS RECEIVED.

**The Surgical Clinics of North America** (Boston Number August, 1922). The Surgical Clinics of North America (issued serially, one number every other month). Volume II, Number IV (Boston Number August, 1922), 270 pages, with 107 illustrations. Per clinic year (February, 1922, to December, 1922). Paper \$12.00 net; cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

Dr. W. R. Holmes, Jr., of Atlanta, was married to Miss Idelle Palmour, September 28th at 9:00 p. m.

#### PUBLIC HEALTH AND ADMINISTRATIVE NOTES.

**Abstracts From the Annual Sanitary Report, Fleet Surgeon, United States Atlantic Fleet, for the year 1921.** Calculations for the last half of the year give an annual rate of 102 per 1,000. The rate for the entire navy for the previous year was 126 per 1,000. The high percentage of failures of prophylactic treatments is probably due to the fact that the enlisted man, through greater knowledge of the subject, is seeking in his own way to avoid venereal disease. The result is that the ship's prophylaxis is used to cover up errors or neglect. On the other hand, there is a better appreciation on the part of the crews at large of the dangers of illicit intercourse. This is associated with a more intelligent effort to avoid or prevent infection, which is apparently the cause of the low rate per 1,000. (United States Naval Medical Bulletin, July, 1922.)

**The Relative Parasitocidal Value of Arsphenamine and Neoarsphenamine.** With a description of the Trypanocidal Test. Voegtlin and Miller apply the test to thirteen lots of arsphenamine and fifteen lots of neoarsphenamine of different manufacture. The most important point brought out by the investigation is the fact that neoarsphenamine is a much more variable product than arsphenamine as far as parasitocidal power is concerned. The trypanocidal power of different brands of arsphenamine varies only between 3 and 4.5 c. c. 1-100 arsenic equivalent solution per kilo body weight, while the trypanocidal power of neoarsphenamine ranges from 2.25 c. c. for the most efficient preparation, to 7.5 c. c. for the least effective. It is noted that the toxicity of both drugs is considerably lower than that of preparations found on the market two years ago. (Carl Voegtlin and D. W. Miller Public Health Reports, July 7, 1922.)

**The Incidence of Syphilis in the Dead House.** Melchoir has investigated the frequency with which syphilis can be demonstrated clinically and by post-mortem evi-



dence among hospital patients. Between 1914 and 1920, 5,865 bodies were examined at the Communal Hospital in Copenhagen, and in 4,717 cases the ages of persons dying over the age of 15 were recorded. Among these there were 358 (7.6 per cent) with anamnestic, clinical or post-mortem evidence of syphilis. 65.4 per cent of the syphilitics died between the ages of 30 and 60, whereas only 46 per cent of all patients died between these ages. Only 25.1 per cent of syphilitics died after the age of 60, and only 7.2 per cent after the age of 70; whereas the corresponding percentage for all the patients were 44 and 22.5 respectively. A definite history of infection was obtained only in 54 per cent and the date at which infection had occurred was given in barely 50 per cent. In this category about every other patient had died from 5 to 25 years after infection. But only in 7 out of 26 of these cases could the cause of death be traced to syphilis. Syphilitic changes were found post-mortem in 248 cases—that is, in 69.3 per cent—the percentage rising with the age of the patient, being only 23.5 among persons dying under the age of 30 and 88.5 among persons dying after the age of 70. (L. Melchoir, *Hospitalstidende*, May 12, 1922; *British Medical Journal*, July 8, 1922.)

### ORIGIN OR THE CEREBROSPINAL FLUID.

Nearly a century has elapsed since Magendie, (1) in 1825, first clearly described the physical properties of the cerebrospinal fluid. Always a body fluid of scientific interest, it has in comparatively recent times acquired a new sort of importance because of the diagnostic and prognostic indications that can often be derived from its chemical, bacteriologic and serologic aspects. Consequently, it seems strange that after these many decades of study devoted to the cerebrospinal fluid some of the most fundamental questions with regard to its origin and function re-

main unanswered or in dispute. Although most of the modern investigations on the source of the fluid have been based on the hypothesis that the choroid plexuses elaborate the greater portion of it, this view has been challenged by Becht. (2) In an elaborate review of the subject, Weed (3) has attempted to reconcile the conflicting opinions and the alleged confirmatory evidence. Dandy (4) has been able to produce unilateral internal hydrocephalus by obstructing one foramen of Monro; extirpation of the choroid plexus in such an obstructed lateral ventricle prevented the development of an internal hydrocephalus. This experiment Weed regards as the strongest single substantiation of the hypothesis that the origin of the cerebrospinal fluid is associated with the plexus. Nevertheless, in spite of the corroboratory favorable histologic structure of the choroid plexuses, and the substantiating effect of pharmacologic agents in harmony with a secretory function, as well as anatomic and embryologic indications, Weed now believes that these plexuses cannot be the sole sources of the fluid. In fact, there is some anatomic evidence that the perivascular spaces also pour a certain amount of fluid into the subarachnoid space, where it mixes with the liquids produced in the cerebral ventricles. (5) Such an addition, Weed concludes—significantly for the diagnostician—probably accounts for the reported differences between subarachnoid and ventricular fluids on serologic and chemical analysis. The ependymal cells lining the cerebral ventricles and the central canal of the spinal cord may also contribute a minimal addition to the intraventricular cerebrospinal fluid. With the precise source, mode of production, amount and migration of the latter still partly undetermined, the resourcefulness of the investigator is challenged to afford an answer.—*Jour. A. M. A.*, Sept. 2, 1922.

1. Magendie: *Recherches sur le liquide cephalo-rachidien*, Paris, 1825.

2. Becht, F. C.: *Am. J. Physiol.* 51: 1 (Feb.) 1920.

3. Weed, L. H.: *The Cerebrospinal Fluid*, *Physiol. Rev.* 2: 171 (April) 1922.

4. Dandy, W. E.: *Tr. Am. S. A.* 37: 397, 1919.

5. Weed, L. H.: *J. M. Res.* 31: 93, 1914.

**ABSTRACT.****Presidential Address.**

Granville S. Hanes, M. D., F. A. C. S.  
Louisville, Ky.

**Some Observations, Chiefly Clinical, on Infections of the Rectum and Adjacent Structures, With Special Reference to Pruritus.**

Instead of the usual type of presidential address, relating to the policies of the Society, the writer presented a scientific paper, which contained the results of his clinical studies of pruritus ani. He believed that pruritus and many other ano-rectal conditions are bacterial in origin, and, having found that a probe could be passed easily under the skin of and about the anus in so many patients, he concluded that there were potential cavities for harboring such bacteria. Knowing the futility of much of the ordinary treatment of pruritis, he conceived the idea of introducing into these cavities, hypodermically, some agent to destroy the infection. He experimented unsatisfactorily with various materials, but finally, having several cases in which stomach analysis showed deficient hydrochloric acid and believing that this natural product of the body undoubtedly protected the stomach from the invasion of ingested bacteria, it occurred to him that this might be the bactericidal agent he sought. Accordingly he tried it in varying strengths until he obtained the best results, without unpleasant effects, with solutions of 1 to 2000 and 1 to 3000, preceded by solutions of 1/2% novocain to prevent the pain from the use of the acid. The pruritis was relieved at once and permanently in all cases. He at first injected only under the skin, but found that, if the acid were carried high under the ano-rectal mucosa, the results were much enhanced. He found also that hydrochloric has a remarkable effect in softening fibrous deposits, as in strictures and about old fistulous tracts, some of which were cured; the chronic infection of the anal tissues was cured, the sphincters becoming less ir-

ritable and constipation and reflex symptoms improving; that hemorrhoids were reduced and cured with the bleeding therefrom, and that prolapse in cases previously operated on unsuccessfully disappeared. His success in this work led to his using hydrochloric acid in the treatment of other conditions with most satisfying results.

**ABSTRACT.**

Joseph F. Montague, M. D.  
New York, N. Y.

**The Etiology and Pathogenesis of Pruritis Ani.**

The writer considered that all cases of pruritis of the anus could be clinically divided into two classes. 1. Direct Pruritis of the Anus, due to direct irritation of the peripheral nerve endings in the pruritic zone with consequent primary pathology. The direct nature of this can be demonstrated by the abolition of pruritic sensation by local anaesthetization, nerve blocking, or superficial neurotomy. 2. Indirect Pruritis of the Anus, due to the misreference of irritable stimulus from elsewhere to, and conscious perception in the pruritic zone, which at first is devoid of pathology. A desire to scratch is produced, which leads first to a traumatic and then to an infective chronic dermatitis, i. e., a superimposed Direct Pruritis. The early indirect nature of this may be demonstrated by the lack of abolition of pruritic sensation by local anaesthetization, etc., and by the discovery of the irritable stimulus. Temporary relief may be obtained by treatment of the direct component, but the indirect component remains and will cause recurrence. On this hypothesis a working basis for treatment may be established. Finally the writer said that he was forced to the conclusion that Direct Pruritis is a distinct clinical entity and Indirect Pruritis a symptom of another disease, and, for differentiation, suggested for the former the name of Pruritis Ani and for the latter the name of Anal Pruritus.



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# THE JOURNAL

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### ACUTE CONDITIONS OF THE ABDOMEN REQUIRING SURGICAL INTERFERENCE.\*

L. C. Fischer, M. D.  
Atlanta, Ga.

Of the acute conditions of the abdomen requiring surgical interference, many are exacerbations of a chronic disease that have existed for a number of years. This is notably true of the appendix, the gall bladder, stomach, duodenum, certain forms of peritonitis, and in the female, the tubes and ovaries.

In my work in the last two years the appendix has been responsible for about ninety per cent of the acute conditions operated upon, or seen and not operated. In twenty-seven per cent of these cases, the appendix has been ruptured, gangrenous, or both, with either beginning or far advanced general peritonitis, or, as in a few cases, a localized abscess. The remaining ten per cent has been divided among many conditions; eight cases of ruptured ectopic pregnancy, four cases of ovaries with twisted pedicles; the balance composed of gall bladder conditions, disease of the female organs, and some unusual cases, such as perforating ulcers of the duodenum, peptic ulcers of the stomach, rupture of certain viscera from trauma, one case of perforating ulcer in typhoid fever with peritonitis both general and local. The peritonitis in most cases was associated with some of the preceding diseases, except four cases due to tuberculosis.

In acute lesions of the abdomen accurate diagnosis is as important as in chronic or sub-acute conditions. Unfortunately the acute conditions will not allow us the time to use the many diagnostic procedures

used in the more chronic diseases. The diagnosis is often made hurriedly on account of the desperate condition of the patient, and even when we have time, there are many acute conditions that we are confronted with where no more accurate diagnosis can be made than "an acute surgical condition of the abdomen." Especially is this true in acute pancreatitis, and thrombosis of the mesenteric arteries.

A careful history is important, as from this, and a hurried physical examination, our decisions are often made. It may aid us more than any symptom we may be able to elicit, and will show that many of the acute lesions are but a severe exacerbation of a chronic condition. This is notably true in perforating ulcers of the stomach or duodenum. A statement from the family or friends of long standing digestive disorders, with or without pain, will aid us much in arriving at a definite diagnosis. A history of previous attacks similar to the present one, of previous operations with the complications or results, may aid us materially, especially in suspected obstructions. After the history the symptoms upon which the diagnosis is made are of most importance in the order named: pain, nausea and vomiting, muscular rigidity with tenderness on palpation; pulse and temperature, posture, facial expression, and the condition of the skin. Covered by many of these, is one of the most important conditions met with—shock. In the present-day all of the mechanical devices should not be overlooked, such as blood pressure, x-ray, and complete laboratory report.

Pain, while not the one symptom by which we make a diagnosis, is possibly the one that most influences our opinion.

\* Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



While so important from its diagnostic standpoint, its value is often destroyed by one of the greatest mistakes we can make, that of giving an agent to relieve the patient before we have made a positive diagnosis, and also preventing us from getting the consent of the patient or family to take some definite action for relief; especially does this apply to surgical interference, no matter how urgent the attendant may be in his advice. Many of us recall cases of fatal peritonitis, where the pain of a fulminating appendix has been relieved by a hypodermic of morphine. Five cases to which I referred above in my work in the last two years and seven cases of general peritonitis where operation was subsequently done were masked by morphine. The character, duration and location of pain, whether griping, dull and aching, or sharp and lancinating should be considered. The sudden lancinating pain of a ruptured ectopic pregnancy, should not be confounded with a griping radiating general abdominal pain of the first stage of appendicitis, and certainly not with the final pain that locates itself definitely in the right side of the abdomen. The intense griping pain of gall bladder disease, with or without stones, radiating to the back and under the shoulder blades, should be easily differentiated from the radiating and intermittent pain of a kinked ureter, or stone in the ureter, or so-called kidney colic, which in the large majority of cases is caused by a stone, and is normally always referred down the course of the ureter to the bladder and the inside of the thigh. It is, however, easy to be misled by many of the conditions in the right side, unless we use great care in our diagnosis. This particularly applies to differentiation between appendicitis and the right tube and ovary in the female at or about the menstrual time. The referred pains of pneumonia of the lower lobe of the right lung with or without pleurisy are most misleading, especially in a differentiation from acute appendicitis. It is unfortunately one of the conditions where the laboratory is of little or no as-

sistance as leukocytosis is present in pneumonia as well as in appendicitis.

Nausea and vomiting are many times important symptoms, though should not be given too much weight, as pain in most patients produce these, especially in neurotic women, children and patients with much shock. The persistent vomiting of partial or complete intestinal obstruction where the character of the vomiting is considered, and the vomitus examined in the laboratory, becomes a positive symptom, and often aids in locating the obstruction.

Muscular rigidity with pain on palpation, is always an important symptom, being one of the efforts of nature to protect the affected part. In nervous patients and children, also in chronic invalids and those who are unduly familiar with symptoms, muscular rigidity may be discounted. However, muscular rigidity accompanied with pain on palpation in appendicitis, in any form of peritonitis, inflamed gall bladder, acutely inflamed tubes and ovaries, and an ovary with twisted pedicle, is often conclusive of the true condition. Due care, however, must be given the extra abdominal conditions which produce muscular rigidity, such as affections of the kidney, ureter, and pleurisy with or without pneumonia.

The temperature may be high or low, according to the severity of the condition. A sub-normal temperature may be present in ruptured ectopic pregnancy or ruptured appendix and other severe abdominal conditions when they first appear or during the stage of shock and beginning dissolution. It is also true, that too much stress cannot be placed on an elevation of temperature as many of the most advanced and desperate conditions will not register an elevation.

The pulse, while an important symptom, may be misleading. It is very rapid in persistent hemorrhage and almost imperceptible in shock from any serious abdominal condition. However, too much weight cannot be given it as in nervous women and children it may very closely simulate that of more serious conditions.

Pre-operative shock with the accompanying pallor, increased pulse rate, lowered temperature, anxious facial expression, often sighing respiration and air hunger, is associated with more serious lesions, as a ruptured appendix, ectopic pregnancy, perforation of duodenal or gastric ulcer, and in less acute conditions, as in typhoid fever with perforating ulcer. Post-operative shock is usually evidence of slipping of a ligature or failure to tie properly some vessel, resulting in hemorrhage, or the result of prolonged operation or rough handling of the abdominal viscera. One of the most important conditions producing shock is complete obstruction of a gut soon after abdominal section. This, however, is associated with unusual pain and early excessive vomiting.

I often fear that many of us in the larger cities are apt to depend too much upon the laboratory or mechanical aids for our diagnosis. I recall several cases where internists have been slow to agree to operation on account of the blood picture. One death from appendicitis is still fresh in my memory where all of the physical signs were urgent but, unfortunately for the patient, a leukopenia instead of a leukocytosis was present. The patient had had a few hours before he was seen a general griping pain over the abdomen which was suddenly relieved in his right iliac fossa. He had a subnormal temperature, rapid pulse, nausea and vomiting with an anxious expression. On account of this sudden relief of pain and the leukopenia the internist was disposed to believe it to be intestinal cramp. Just at this point permit me to say, I believe there are few severe or acute pains in the abdomen, caused by any condition, other than some serious involvement of some of the organs under discussion. When in the above case, the consent of the internist was given, the patient was more or less moribund, and operation was impossible.

Time will not permit me to go into the differential diagnosis of the various abdominal lesions met but on account of the number of cases seen in the last two years

I wish to stress two conditions that should not be confounded. The intense, sharp, lancinating pain accompanied by shock, pallor, increased pulse rate, lowered temperature, air hunger, anxious facial expression, coupled with a history of unusual menstrual disorders for weeks, or a few months, should not by any means be confounded with appendicitis.

Differential diagnosis where possible is imperative, as certain conditions are best treated by delay, such as acute inflammation of the gall bladder or liver, and the female organs. We should, in our efforts at diagnosis, bring to our aid all of the modern appliances, such as the blood pressure apparatus, x-ray and a complete laboratory report. Accurate diagnosis of many of the more serious abdominal conditions, is materially aided by the x-ray, especially diseases of the stomach, duodenum, gall bladder and appendix. It also helps in differentiating these from stones in the right kidney or ureter.

A decision to operate or not is often hastily made but should always be guarded by the time the patient is first seen and our knowledge of the course nature may take with the condition. Drs. John B. Deaver, W. J. Mayo, G. W. Crile and others, have called attention to the anatomic surroundings of the gall bladder, duodenum, the posterior wall and lesser curvature of the stomach and pelvic organs, favoring the formation of a localized abscess, and clogging off the infections from the general peritoneal cavity. We should also consider the ability of the peritoneum to deal with infections. To operate early is always the surgeon's wish but early in most cases depends upon the condition of the patient and not the time seen. In some instances a case seen early may be late for operation as fulminating appendicitis. The general condition of the patient, the time and extent of disease, the stage of peritonitis, pulse and temperature will all influence much the operable condition of any particular patient.

The border line cases are the most difficult to decide upon. To a general rule to



"operate early," there are a few exceptions such as profound shock from any cause, advanced general peritonitis, acute affections of the gall bladder and female organs, and those desperate and depressing cases we all see of lowered temperature, rapid and imperceptible pulse, sunken eyes and facial expression of rapid dissolution. Many men advise operating at once, not considering the time or condition of the patient. But after years of experience and careful observation, and, in many cases, sad experience, I wish to emphasize the teachings of some of our most capable surgeons: "Do not operate in the last referred-to conditions, especially in profound shock, general peritonitis with much distention, with a temperature below normal, and a pulse rate above 140". Should such conditions be attempted surgically, they will add materially to one's mortality list and to a just criticism of surgery. However, where the operator decides that death is inevitable unless the patient be given a chance, exploratory laparotomy may be done, which in a few cases may save a life. In the great advance in diagnosis there are few conditions where an exploratory laparotomy is excusable. We should at all times not count our operating mortality but should do what is the greatest aim of all true surgeons—our duty. I have not referred to treatment or operative technique, as each individual surgeon will use his best judgment in every case.

Finally:

1st. A careful history should be taken, together with a thorough physical examination, considering all of the symptoms from a standpoint of differentiation.

2nd. Operate as early as possible, where the condition will permit.

3rd. In far advanced cases where operation is not advisable, conserve life by applying diligently the Murphy-Ochsner treatment.

## THE SURGERY OF GASTRIC CANCER.\*

Frank K. Boland, M. D.

Atlanta, Ga.

This paper could as well have been entitled "The Treatment of Gastric Cancer," because in the present state of our knowledge, the treatment of cancer of the stomach, when treatment is available, is surgical. The writer was led to present such a paper through hearing a prominent gastro-enterologist declare not long ago that the surgical treatment of cancer of the stomach was a failure. This is largely true, but not absolutely so.

If the situation is so bad, does it not behoove us to double and treble our efforts to improve it? The main reason for our high mortality is that we do not get the cases early enough, and why is this? First, because cancer of the stomach is one of the most insidious of all diseases, and many cases are hopelessly advanced before medical advice is sought; and second, because many cases which do present themselves in ample time for a cure or for a material prolongation of life are so indifferently examined by many physicians that the diagnosis is too long deferred.

The cases which have progressed too far before giving symptoms seem an almost unsolvable problem at the present time, and yet, if this large class of cases could be studied thoroughly, it would be found that a surprising proportion of them did have suspicious symptoms, if the patients only knew how to recognize them. What does this mean? It means that our education of the public concerning cancer has only scratched the surface. National societies, and cancer commissions in this and other states have done their best with the facilities at hand, and are to be commended for their excellent work. But the public is hard to arouse on a subject of this sort. One public meeting, one distribution of pamphlets will not do it. The matter must be gone into again and again. The very persons who need instruction about cancer often are the hardest to reach. New methods must be devised, and new plans

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must be consummated to carry the warning to all the people.

Is it fair to ask, has as much effort been expended to touch the inhabitants of rural districts as those of the more accessible city communities? Statistics state that far more farmers suffer from cancer of the stomach than any other people. This is explained in part by answering that farmers make up the largest percentage of our population. But are farmers and their families being educated as to the signs and symptoms of malignant disease? Truly a tremendous task, a sacred obligation confronts us. Individuals and organizations alike must hasten to take the first step in checking the ravages of this mighty plague—telling all the people what they should know about cancer. Figures would show that cancer is increasing, but this may be due to improved methods of collecting statistics. Certainly it is not decreasing. The program of publicity concerning tuberculosis has reduced the mortality from this disease more than 60 per cent in the past twenty years. Can't we do as much for cancer?

The other cause for the high mortality in gastric cancer in that we make careless and incomplete examinations of many of our patients, is a serious indictment against many members of the profession. Sir James MacKenzie has well said that the future of medicine depends upon the general practitioner. Certainly this is true so far as the early diagnosis of cancer of the stomach, the commonest form of cancer, is concerned. Often a patient comes in with his case self-diagnosed, and the busy or somnolent physician is only too ready to accept such a diagnosis without a proper investigation. In this way gastric carcinoma and other serious conditions are overlooked until it is too late. The patient says he is "run-down," and wants a "tonic;" or he has indigestion which he thinks is "nervous," and he wishes a "nerve tonic;" or he has lost a little weight and wants you to put him on a diet.

Such a patient should be given the benefit of a thorough examination. A large mass already may be present in the up-

per abdomen, and the case may be inoperable. However, the size of the mass does not always determine the operability of the case. Lymphatic involvement is a more important factor in deciding for or against operation. A large tumor may show but little extension into the lymphatics, whereas an almost imperceptible tumor may show so much lymphatic involvement as to absolutely contraindicate surgical interference. Since such lymphatic involvement usually takes in the lesser curvature of the stomach often it cannot be discovered without laparotomy.

But physical examination of the patient may reveal no mass, and cancer of the stomach, early or well-advanced, may be present. These are the cases in which good x-ray work may render invaluable help. Analysis of stomach contents does not give much aid except in cases which probably could be diagnosed without such assistance. What the x-ray shows may be ulcer instead of cancer, which is no grave error, and in either event the treatment usually is operative. Or what the x-ray shows may be nothing, which is a condition rarely met with in the hands of the expert.

Some practitioners seem to refuse to use the x-ray method of diagnosis because they are afraid the findings will be negative. The x-ray is not called upon except when the diagnosis could be made without it. It is depended upon only as confirmatory evidence. The x-ray is of more value than this in diagnosing cancer of the stomach. Often it can be made the main reliance in detecting an early case, even when the symptoms are almost negligible.

Sometimes one makes a fatal mistake even after correctly diagnosing cancer in not immediately advising surgical aid. Not only should patients with unmistakable signs of gastric cancer be given the advantage of prompt surgical treatment, but most cases only reasonably suspicious signs should have the same chance. The doubtful cases usually are the ones in which surgery gives the best results. The fact that the patient does not present the classical picture of cancer of the stomach, if there is such a picture, probably indi-



cates that he has not reached the stage where operation will be a failure, though sometimes patients with the least symptoms have the most extensive pathological changes.

After all has been said and done, while exploratory laparotomy is not a thing to be advised lightly or too often, yet it is mainly by such means that we may make an absolutely correct diagnosis, both as to the nature and the extent of the disease, and do it soon enough to offer the patient the best chance he has to live. As has been said, surgery has accomplished but very little in curing cancer of the stomach, but its results will be improved just in proportion as the cases are recognized and treated earlier. Radium or some other therapeutic agent may some day supplant the knife. If such means will decrease the mortality one iota, God hasten the day they will become available.

What plan of operative treatment should be recommended? Complete removal of the growth whenever feasible. If not, simple gastro-enterostomy will prolong many lives. If the fixation of the stomach and the involvement of its walls do not permit the anastomosis to be done through perfectly sound tissue, no operative procedure should be attempted. After excision of the growth, the question arises as to which is best, gastro-enterostomy or gastro-duodenostomy. Joining the stomach to the duodenum is advisable if too much of the stomach has not been taken away and the parts can be brought together without undue tension; otherwise, joining the stomach to the jejunum is safer. Rarely, if ever, can the cardiac end of the stomach be removed for carcinoma, with the prospect of a satisfactory outcome, on account of the difficulty of connecting the pyloric end to the oesophagus. In such a case, palliative gastrostomy is the wiser procedure.

Six consecutive cases of cancer of the stomach studied recently afford examples of some of the points we wish to emphasize. Two of the cases were females, and four were males. Of the males all were farmers. Case 1 was a maiden lady of fifty

summers who presented well marked signs of the disease when seen by the first physician. She had never been sick before, and had not had stomach symptoms until two months previous to seeking medical advice. A large tumor was very evident. Operation was recommended, but refused because the patient said there had never been an operation done on any member of her family and she would rather die than have it. And so she did, in about three months, after trying all other methods of treatment.

Case 2, a man of sixty years, came in with typical symptoms and in good condition. He had been suffering with indigestion for about six months. A mass and the x-ray verified the diagnosis. Operation revealed a tumor in the pylorus the size of an orange, without glandular involvement. Pylorectomy and gastro-enterostomy were performed and the report on the growth by the pathologist was carcinoma. The operation took place two years ago, and the patient apparently is in good health today and at constant work on his farm.

Encouraged and enthused over the good result in Case 2, Case 3 arrived a short time later from the same part of the country. He had the same symptoms, only much more pronounced, and his condition was bad. X-ray visualized a large defect. Exploration was decided upon, and a mass the size of one's fist was discovered in the pylorus, with a thick chain of indurated glands in the lesser curvature of the stomach. A posterior gastro-enterostomy was done, but under considerable tension of the tissues. The patient never fully reacted from the anesthetic, and died twenty-four hours later. As autopsy was refused; the immediate cause of his death was undetermined.

If this case had been handled like Number 4, who had a far more extensive growth, his exit certainly would not have been as quick as it was. The x-ray showed a broad defect in the lesser curvature in Number 4, who was a man of nearly sixty. The x-ray also demonstrated that the py-

lorus had not been reached by the disease; the patient suffered no pain and had no regurgitation. He had lost weight and was growing progressively weaker. He had been sick about a year. It was thought that a gastro-enterostomy might stay the advance of the growth toward the pylorus. Laparotomy, however, demonstrated that while the disease was still some distance from the pylorus, the entire lesser curvature was involved and the whole stomach seemed to be plastered to the vertebral column. No operation was attempted. The patient was not told that his case was a hopeless one, and probably for this psychic reason he began at once to get better. His appetite improved, he gained five pounds in weight and only began to decline after four months, dying one month later. This case illustrates why gastric cancer may be so far advanced before it is recognized, because neither orifice of the stomach is involved.

Number 5 was a clean-cut example of cancer developing on ulcer of the stomach, a condition which some deny, but which no doubt happens not infrequently. The victim was a woman of thirty-five who had complained of symptoms of gastric ulcer for many years. Evidently the trouble had started as appendicitis, or was first thought to be appendicitis, and the appendix had been removed two years before without relief of the symptoms. The x-ray and the history of vomiting denoted pyloric obstruction. The patient was dreadfully emaciated and was losing ground rapidly. Exploration showed a hard mass at the pylorus the size of a small apple. The outline of an old ulcer could be seen in the mucous lining and the pathological finding was carcinoma. Gland involvement was not apparent and the mass was removed completely. Posterior gastro-enterostomy followed the pylorotomy. After the operation the woman improved but very slowly, and continued to vomit regularly. She returned home, and we heard later that her gastric condition was better. Six months subsequent to the operation we read of her death and learned that the cause was given as pellagra.

The last case was one which it will seldom be our fortune to see, a man of sixty-five with practically complete obstruction of the cardiac end of the stomach, proven by the symptoms, the x-ray and the operation. He was rapidly starving to death, having lost weight continuously for the past eighteen months. Gastrostomy was considered his only hope. Opening the abdomen revealed a mass in the cardiac end of the stomach the size of a small grapefruit. A section was taken for microscopic study, which demonstrated cancer. A Witzel gastrostomy was performed. The man's condition improved immediately and he gained ten pounds the four weeks he remained in the hospital. Milk, albumins and other liquids were fed through the tube in large and increasing quantities. Before he went home he could swallow water without regurgitation. A year later, when last heard from, the tube was out, the gastrostomy wound was closed and the patient was on a general diet.

To recapitulate: First, our education of the public concerning the cancer problem has hardly begun. Some Paul Revere must sound the alarm in every hamlet and home. Second, the profession must be continually on guard to catch cancer cases as early as possible. Third, surgical treatment is the only measure at our command today which offers any hope of relief, and this only when employed at the earliest possible moment.

#### DISCUSSION OF PAPERS ON ABDOMINAL SURGERY.\*

Dr. J. L. Campbell, Atlanta:

I am inclined to believe that this group of papers deal with the most important subject that has been brought before the Association during this meeting; especially is this true of the papers of Drs. McRae, Boland and Westmoreland.

Dr. Westmoreland has been making a close study of the end results in operations for chronic appendicitis. I agree with him that a large majority of the so-called cases of chronic appendicitis are never relieved. I have ceased to advise patients to submit to an operation for this so-called condition. The symptoms are due to faulty rotation of the cecum and embryonic adhesions. They cannot be relieved by a simple appendectomy. The brilliant operations done in five or ten minutes are a farce.

The abdomen should be thoroughly explored and deformities corrected. No surgeon should attempt abdominal surgery until he is familiar with the embryology of the intestines. He cannot properly recognize deformities in any other way. Rough abdominal surgery results in more harm than good.

One point in Dr. Boland's paper, in which I am particularly interested, is the propaganda for the control of cancer. There were 1,211 deaths from cancer reported to

\* The papers of Drs. W. F. Westmoreland and F. W. McRae are not included in this symposium because they have not been received by the Journal.



our State Bureau of Vital Statistics last year, but that does not represent our total death rate from this disease. White people are suffering more from cancer than the negroes, the ratio being two to one. There were about 290 deaths from cancer of the female genital organs, 93 from cancer of the breast and 329 from cancer of the stomach and liver. Deaths from cancer will soon be as numerous as those from tuberculosis.

Dr. George M. Niles, Atlanta:

I rise to discuss Dr. Boland's paper on gastric cancer, and wish to say at the outset that I do not consider surgery a failure in gastric cancer in certain cases, where it is invoked at an early and proper time. In cases where the cancer has just attacked the pylorus and has not greatly involved other structures, surgery has a chance to relieve the patient immensely; and in cases where it has attacked the stomach at the cardiac end, it can relieve and palliate. But the main point that I want to make is that we should not lightly consider digestive disturbances in elderly people, who have heretofore been strong and vigorous. These elderly people, farmers and farmers' wives, are busy, and they do not have time to consider little things. They begin to have indigestion, to lose weight, to feel less vigorous. Those cases need care and thought. In many of such cases, if the attending physician will go at it carefully, he can find evidence of malignancy at an early time, and some good can be done.

As to gastric analysis, there are many people past middle life who have achylia, anyway. If the cancer does not affect the middle zone of the stomach where the acid juices are, it does not necessarily disturb them at all.

The Roentgen ray, when carefully and thoroughly exercised and thoughtfully and intelligently read, I believe will help us more in the diagnosis of early gastric cancer than any one method. I had a case, a farmer well in the fifties, a robust, rugged man, who came to my office. A small part of the pylorus was involved. He had lost some weight, and said he was weak. By the way, his son was a physician, which was in his favor, for if he had been just a farmer I am not sure that he would have submitted to a radical operation, and as it was, he did. The operation was entirely successful.

Dr. Thos. H. Hancock, Atlanta:

I want to say just a few words in reference to Dr. Westmoreland's paper. Only a few years ago we knew almost nothing about appendicitis. In 1888, Dr. Thos. Markoe was trying to teach us about typhilitis and perityphilitis, but before I graduated in 1891 Dr. McBurney was teaching us about appendicitis, and he described his inch and a half incision and his week and a half in bed operation. This is today the proper operation for all males under twenty-five. When the tubes or the ovaries or the gall bladder are to be examined, the Battle incision is better. We formerly made several ties in the meso-appendix, and after taking off the appendix, tied all of the ligatures together. Some of my cases were complaining about their inability to reach up without a catch in the region of the appendix, and I was telling Dr. Westmoreland about it probably ten years ago. He described the operation he mentions now, and after that I began to tie off differently and have had no trouble. The invagination of the appendix is useless and is absolutely inadmissible in gangrenous or suppurating cases. However, the appendix should be tied with ten day chromic catgut or with linen.

With reference to cancer, my operations have generally been unsatisfactory, as few of them were seen early enough. It is good surgery to do an anastomosis in the stomach cases to relieve the pain. I have stopped removing the uterus for cancer, as I do not see them early enough to stop the growths.

Dr. W. B. DuVall, Atlanta:

Under acute conditions of the abdomen, I wish to refer to one condition, which, however, is not surgical, known as acute mucous colitis. These cases will begin with general abdominal pain, temperature, pulse simulating appendicitis, leucocytosis. They present very much the same pathology as acute appendicitis or goitre. Every patient should be questioned closely as to the passing of mucus in the stools. This mucus can come on in a few hours and a large quantity be passed, and may give a definite clue to an obscure condition of the abdomen.

Very often a patient will come in holding his right side, with seven or eight diagnoses of appendicitis. His pain will not be at McBurney's point, but will be a little lower, and more general. These patients should be questioned as to the passing of mucus, blood or pus. If you pass the sigmoidoscope, very commonly you find an abrasion, ulceration, or some pathology that will account for the pain on the right side.

Dr. Boland:

I would like to say something about appendicitis. I think undoubtedly there are some cases in which we can afford to postpone operation, but I think they are very few and rare, and I think it is a dangerous idea for the average man to get into his mind. I think it is better for the average man to associate operation with appendicitis. I have

seen many die from late operation or no operation at all.

I agree with what Dr. Westmoreland says about a good incision in operation for so-called appendicitis. I think the diagnosis of chronic appendicitis is a very dangerous one. It is analogous to the diagnosis of neurasthenia. I do not think that a man should make a diagnosis of neurasthenia until he has eliminated every other possible cause, and I do not think that a diagnosis of chronic appendicitis should be made until every other cause is eliminated.

Dr. Geo. C. Mizell:

We agree with and appreciate Dr. McRae's paper on conservatism in surgery. We appreciate Dr. Fisher's paper on the acute abdomen, and the other two papers that were read. However, I must confine my remarks to Dr. Boland's and Dr. Westmoreland's papers. It appears that surgeons have overlooked one important point in gastric cancer. We all know that gastric cancer should be operated upon early—the earlier the better. However, no one has told us how to make an early diagnosis of gastric cancer, and how to make a diagnosis of the type. Dr. Westmoreland said that the size plays very little part, and that the pathology depends entirely upon the type. Unfortunately, we are placing too much dependence upon the X-ray in the diagnosis of gastric cancer. Our X-ray men are not always thorough in their X-ray examinations of the gastro-intestinal tract. Very frequently patients come in and say that they have had an X-ray examination of the abdomen, and we find that a diagnosis has been made after one or two visits. It is impossible to make a diagnosis in that short length of time. What applies to cancer, in the way of X-ray diagnosis, also applies to the large and small intestine. In making an early diagnosis of gastric cancer lesions lower down must be ruled out. Certain lesions will give filling defects in the stomach, that cannot differentiate from the filling defects in early gastric cancer and small ulcer.

Some cures of gastric cancer by surgery are reported, but I think that you will find a little later that some of these cures were not cancer. In recent years I have seen a few cases diagnosed gastric cancer by the X-ray, from enormous filling defects, that upon operation were found to be linitis plastica.

Dr. Geo. W. Fuller, Atlanta:

I wish to emphasize what Dr. Boland said as to when appendicitis should be operated upon. In my experience I have made up my mind that the appendix ought to be operated upon as soon as a case is diagnosed as appendicitis. I agree with him that the surgeon is wrong in waiting. Operate as soon as the diagnosis is made. The results of the surgeon who makes this a practice, I feel sure, will be by far more gratifying than those of one who advise waiting on selected cases.

Dr. O. H. Weaver, Macon:

Just one or two points have come out in the papers, and in the discussions, that it seems to me might be emphasized. Dr. Hancock's statement in regard to never operating on cancer of the uterus is a very broad statement, and, I think, contrary to the best surgical judgment of today. There is malignancy of the cervix in which there is a question, of course, even in the early stages, whether the complete Wertheim operation is preferable to radium and the X-ray; but in malignancy of the fundus, there is rarely any question but that a radical hysterectomy, followed by X-ray, is the proper and recognized treatment.

The old points have been well impressed for a long time, early recognition and prompt action, and I think they are most important.

I think that Dr. Boland made a mistake when he said that some acute cases of appendicitis could be postponed for operation. The question is not whether they could be, but whether they should be. Of course, many cases recover from the first attack, but the serious thing I see in acute appendicitis today is that when these cases are delayed and given morphine and purgatives, you have a condition which often results disastrously, when usually a simple operation would save life.

Dr. R. C. Swent, Milledgeville.

There is just one feature of this subject which has not been touched up—even Dr. McRae's paper on conservatism in surgery did not bring out the point which I wish to mention. Certain types of cases falling into the hands of the surgeon are psychoneurotics. The patients suffer from neuroses, and have pains in the pelvis and the back. The ambitious surgeon does an appendectomy, but the patient is not relieved. He falls into the hands of another surgeon, who does a cholecystectomy, but fails to give relief. Then he falls into the hands of another surgeon, who does some pelvic operation, but the patient is not relieved. It is all right if the patient has abdominal pathology or pelvic pathology, but in these cases we should remember that the trouble is not in the pelvis or abdomen, but higher up.

Dr. C. M. Curtis:

Not being a surgeon, it might be assumed that I should

not discuss this question at all, but I would like to say a word from the standpoint of the general practitioner. I have been permitted to see quite a number of cases of appendicitis in thirty years' practice, and I attempted to write a little paper once upon the use and the abuse of the appendix. The use, as I see it, is the manufacture of a lubricating fluid, and the abuse is to take it out. I do not think I have ever had a patient die who was not operated upon. At the same time, I have been convinced that the operation for acute and chronic appendicitis is the thing to do.

Dr. McRae, closing the discussion:

In order that there may be no misunderstanding in regard to acute appendicitis, I wish to say that I am, of course, an advocate of early operation in fulminating appendicitis. On the other hand, with patients that come to us two or three days after the beginning of the attack, with beginning abscess formation, I do not know whether the operation should be done at once. The patient is already suffering some shock. If we give him further shock by digging around for the appendix, breaking up adhesions, etc., I think we shall do more harm than good.

The time may not be ripe at present, but in the not far distant future surgery will be better controlled than it is now. Then indiscriminate, often criminal, procedures will be omitted.

Dr. Fischer, closing the discussion:

I wish to thank Dr. Westmoreland for his paper, and to say that he has not lost any of his fascinating way of talking since some twenty years ago. I sat in those days, spell-bound for hours, listening to him, particularly his lectures on fractures. I have again today enjoyed especially his talk on appendicitis and adhesions.

Appendicitis should be operated upon when a diagnosis is made in the large majority of cases. The exceptions to this rule are those with far-advanced general peritonitis, or where the patient is so weakened and the disease so far advanced that surgery is useless.

Dr. Hancock, I fear, pleads a lack of information when he says that cancer is not curable. The most famous men in the world and the largest clinics report cures of cancer varying from 35 to 75 per cent of those operated upon. While I may not have done as much surgery as they, but with my diagnosis made, and with the assistance of such men as Dr. Bunce, I have removed numerous uteri. While there have been recurrences, some patients are living from as far as fifteen years back, so I must resent his statement with all the force there is in me.

Dr. Boland, closing the discussion:

I would like to refer again to what Sir James Mackenzie said about the future of medicine. By the way, he has written a book on the Future of Medicine, which I think all of us should read. He says that the future of medicine depends upon the general practitioner. He divides disease into four stages: the stage of predisposition, the stage of early disease, the stage of late disease, and the stage of death. He says that we have spent millions of dollars upon the last two stages, in studying them in pathological laboratories and in the hospitals, but have spent very little money on the first two stages, and that is where the general practitioner can help us. He should be the best educated man in the profession. The general practitioner is the first man to see disease. We think that we have learned a good deal about disease, in recognizing some of the conditions when we do, but the time will come when we shall recognize them a good deal earlier, recognize them in their incipency, and the general practitioner is the man who will do it for us. I regret that in our medical colleges we have no general practitioners doing the teaching. The teaching is done by specialists.

Dr. Westmoreland, closing the discussion:

In a paper limited like mine I could not speak of the necessity for appendiceal operation. MacCarty examined over two thousand appendices removed at the Mayo Clinic, and in every case the involution was found to be due to infection. In other words, infection is always present—there are bacteria there. He also found out that 91 per cent of all gall stones are caused by ascending infection. We also know that ulcers of the stomach are the result of reflex conditions, in many cases. During the last ten years I think I have not done a gastroenterostomy. I was not satisfied with the results. Those cases were not benefited as they should be after an operation of that kind. So I suggested to Dr. Strickland that we operate on the right side first, and if we did not locate the trouble there, operate then on the stomach. Not a single patient has ever returned. We kept track of them, and they were relieved. Whether this will occur with a deep callous ulcer I do not know. I must acknowledge that my examination of the upper abdomen through the lower incision is not satisfactory after we go beyond the gall bladder, but these patients get well anyway. So the result is that gastroenterostomy has passed out of my operations.

## WHAT CLINICAL MANIFESTATIONS ARE SUFFICIENT TO JUSTIFY DIAGNOSIS OF GALL BLADDER TROUBLE?\*

William Perrin Nicolson, M. D.  
Atlanta, Ga.

At the present time it requires some courage to advocate openly anything like making a diagnosis without the aid of complicated laboratory methods and one is liable to be censured severely for advocating such a thing, but there are many men fully capable of reaching a practical diagnosis who are so placed that they cannot command the assistance of competent laboratory men, and again these steps will prove expensive and inaccessible for many patients.

Under the circumstances we can ask the question, by what clinical signs and symptoms can one reach a satisfactory conclusion that the patient is suffering from gall-bladder involvement in some form? From extensive experience I am convinced that such an end may be obtained, and the results have proved it to have been correct.

In the first place, the writer has long been convinced that infections and involvement of the gall-bladder perhaps make up a larger proportion than any organ of the body, and that such cases are more often overlooked than any other disease. Those looking for a complete picture will, in many cases be disappointed, while at the same time the continued presence of a small number of symptoms will lead to a correct interpretation of the trouble. At the same time many signs and symptoms that are always looked for are completely absent. Notably colics and jaundice are always looked for, but experience has shown that these are frequently absent, and that such absence means nothing against the diagnosis. Acute attacks of cholecystitis and gallstone attacks are so plain in their manifestations that "even those who run may read," but we ask what are some of the more obscure symptoms that are frequently overlooked or attributed to some

\* Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.



other condition. First perhaps is chronic indigestion when accompanied by persistent presence of gas in the stomach or intestines, especially the belching up of gas which is usually worse at night. This is frequently accompanied by more or less severe and continuous burning pain in the stomach and right hypochondrium. The gall-bladder pain may also be in the left hypochondrium or in the right lower quadrant of the abdomen. The following case illustrates this point:

Case 1. Mrs. K., a Russian Jewess, age 45, came to me for examination, suffering from constant indigestion and abdominal pain. The diagnosis was made of inflammation of gall-bladder and appendix. Afterwards the patient told me that she had been told by a good surgeon that she had beginning cancer of the uterus and examination showed this to be true. At operation a complete hysterectomy was done and the appendix removed, but the gall-bladder was left, as we feared to put too much upon the patient. As I have frequently observed when a chronic inflammation of the gall-bladder is present, there was an explosion of an acute cholecystitis within a few days from which the patient suffered quite a time, to be followed by a constant pain in the left hypochondrium, and in the lower right quadrant of the abdomen, with the formation of large amounts of gas in the stomach and intestines. This condition persisted in spite of all treatments for many months until the gall-bladder was removed. The abdominal pain disappeared at once when the patient returned to her room, and her indigestion was cured and she is now in perfectly good condition.

Another symptom which I have seen mentioned is persistent pain in the back of the neck, often extending down into the shoulders, and frequently accompanied also by frontal headaches. I have learned to regard persistent pain in the back of the neck, the so-called base of the brain, as almost typical of gall-bladder trouble.

Case 2. Mr. W. L. C., age 54, a very prominent business man, had suffered for

years from a frontal headache, which came on with his rising every morning. This was accompanied by a constant pain in the sub-occipital region. He was treated by an excellent internist who told me his sub-occipital pain was absolutely typical of arterial sclerosis. He gave up business except some light work and finally gave up work entirely. Several years afterwards he became ill and was in the hands of two excellent medical men when I was called by one of his attendants who made the remark at the time that there was "nothing surgical in his condition." Though he had been an intimate friend I had never examined him and at this time I found conditions which assured me that he had gall-bladder and appendix trouble. He was at that time said to be suffering from a serious myocarditis. In a short time after this I removed his appendix and drained his gall-bladder which resulted in disappearance of this headache and his restoration to health. He made a trip around the world and while in Japan contracted an amoebic dysentery from which he suffered greatly on the trip across the Pacific. Soon after his return to this country he was relieved of the dysentery but when seen by me after reaching home his old headache had returned and he was feeling very badly in every way. An examination at that time in connection with his former history convinced me that his gall-bladder had become reinfected and soon afterwards it was removed. Since which time he has been in perfect health for about four years and the result has fully verified the diagnosis.

Case 3. Mrs. C., age 42, San Antonio, Texas, wife of an army surgeon, was examined and found to be suffering from constant indigestion with highly acid stomach, and belching of gas. There was a great tenderness over the gall-bladder and appendix, with pain in the back of the neck. She had noticed that quite a time the movements from the bowels were very light colored. Her skin was sallow, and the eyes quite stained and yellow. She also had a beginning carcinoma of the cervix. At

operation a complete hysterectomy was done, the appendix removed and the gall-bladder drained through a small incision. All symptoms were at once relieved and she returned home feeling free from all her old symptoms. Soon the indigestion returned and the pains in her head rendered her life unbearable. More than half of her time was spent in bed with severe headaches. Acute exacerbation of her gall-bladder inflammation added to her already heavy burden. Knowing of her former history I advised removal of her gall-bladder which was done and the mucous membrane was found granular and covered by a white deposit as if the surface was covered with a loose mesh gauze. This was done two years ago and since that time she has never had headache or indigestion, and is in perfect physical condition.

None of the patients have suffered from what we would call a perfect gall-bladder complex.

Among other marked manifestations I should place light colored fecal discharges, which is a sign sufficient in my opinion to clinch the diagnosis, and when they have a yellow sclera with constant sallow complexion we need little else to complete the picture. In addition to this these patients often suffer from hunger pains.

Case 5. Mr. J., age 44, traveling salesman, had been for ten years under the care of a prominent gastro-enterologist. On account of severe acidity of his stomach he carried in his satchel bountiful supplies of antacids, and on account of hunger pains carried also at all times something to eat to prevent his having to burglarize some place when he became hungry. This had continued for ten years when fortunately he was seized with a most violent acute abdominal condition and was referred to me by Dr. Black, of Thomason, Ga. His condition was so serious that he went to the operating room within one hour of the time he reached the hospital. He was found to have a violently inflamed almost gangrenous gall-bladder greatly distended. The drainage operation was done from which he made a rapid and satisfactory

recovery. The interesting part is that he has never had to take a dose of medicine for indigestion since that day, and he can wait for his meals without any trouble.

These cases have been selected from many similar ones to point out the fact stated at the beginning that a diagnosis of inflammation of gall-bladder can be made satisfactorily from certain typical and well marked conditions that are subjective. As far as a physical examination is concerned we found that practically all these patients had a marked tenderness over the region of the gall-bladder and a vast majority of cases tenderness also over McBurney's point. In practically all cases the rectus muscles upon the right side will be found more tense than the left and I have noted frequently that there is no abdominal breathing. When the patient takes a deep breath the abdomen instead of rising becomes scaphoid. This will be found so many times that it is very characteristic.

The conclusions we reach are that any patient who has chronic indigestion, belching of gas, accompanied by intestinal gas, pains through the chest, back and shoulders, and notably pain in back of neck, accompanied by acid indigestion and light colored movements from the bowels with tenderness under the right costal margin is suffering from inflammation of the gall-bladder, probably accompanied by chronic appendicitis. And if in addition the patient has a constant sallow condition of the skin with yellow sclera a diagnosis of cholecystitis can be made with practically definite results.

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#### A CLINICAL SURVEY OF PRESENT RESULTS ATTAINED BY NON-SURGICAL DRAINAGE OF PATHOLOGIC GALL-BLADDERS.\*

George M. Niles, M. D., and H. N. Kraft, M. D.,  
Atlanta.

One year ago we presented to this Association a somewhat preliminary report concerning clinical results attained by the

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non-surgical method of draining the gall-bladder. Since then we have kept up this work, and feel that at present our results can be based on firmer clinical grounds. While at present our whole number of taps exceeds 800 and the patients nearly 200, we have limited this study to the consideration of 600 drainages and 140 patients.

It will be understood that we refer to the state of contrary innervation, brought about by the injection of a solution of magnesium sulphate (varying in strength from 25 per cent to 35 per cent) into the duodenum, and the subsequent aspiration of bile and other fluids. This principle, first enunciated by Meltzer, has been in practical diagnostic and therapeutic use for nearly three years. We assume that most of our hearers are familiar with the principle involved, as well as the technic of this procedure, therefore, we will not enter into this phase of the subject. We realize, however, that the question as to the propriety, expediency, indications, and results, both present and future, is to an extent subjudice, and that many intelligent physicians still view it with skepticism. We, therefore, do not wish to appear over-enthusiastic concerning this method, but place before you a recital of earnest efforts during nearly two years.

#### **Clinical Considerations.**

Of the 140, 4 were drained for chronic recurrent attacks of migraine, 4 for chronic cholecystitis with gall stones, one who had probable cancer of the gall-bladder or liver, 4 for acute catarrhal jaundice, 2 who had their gall bladders removed six and ten years ago, 42 for cholecystitis (in some of whom gall-stones were suspected), 22 for cholecystitis and choledochitis combined, and the remainder for chronic "biliousness", as manifested by indigestion, constipation, flatulence, malaise, and a sallow "muddy" complexion.

#### **Number of Taps.**

In 7 individuals only one tap was recorded. In the case of suspected cancer, the results were poor and the prospect of aiding the patient unpromising, so she was sent home. In one other we failed to get

the tube through the pylorus, this being the only one in our experience in which we made such a failure. The other 5 for different reasons, failed to show up again for other taps. One patient has had 17 taps; one, 14 taps; two, 12 taps; one 11 taps; eight, 10 taps; sixteen, 8 taps, and the remaining number 3 to 7 taps.

#### **Present Effect of Taps.**

A few have suffered some nausea during the seance, and about a dozen have found it necessary to evacuate the bowels before the tap was completed. Most of them report a free hydragogue catharsis almost immediately afterward, but no one has been unduly prostrated or made really ill by this procedure. Two have complained of severe headache, but it is probable that this was due to lack of food until rather late in the day. Nearly all of our patients have cheerfully co-operated with us, and but few have exhibited nervousness or complained of fatigue. This method in its entirety is not a trying ordeal, as evidenced by the fact that practically all who tried it once were willing to try it again.

#### **Duration of Seance.**

The average time consumed is from 2 1-2 to 3 hours from start to finish. In a few cases we have finished in 2 hours. Five hours is the longest time consumed. We have found, as a general rule, that if we do not succeed in getting into the duodenum and aspirating some bile in 2 1-2 hours time, it is best to stop and make another attempt a day or two later. We have generally gotten into the duodenum in from 15 minutes to an hour, and after injecting the magnesium sulphate solution, have usually recovered bile-stained fluid in 8 to 15 minutes.

#### **Appearance of Recovered Fluid.**

It is our custom to inject into the stomach warm water as soon as the tube is introduced and the patient lies down on the right side. This not only washes out the stomach, but by stimulating gastric peristalsis aids the metal tip on the tube to pass into the duodenum. In about six per cent of our cases, the water returning from the stomach itself has been more or less

colored by bile. In some of the patients, however, the water as it flowed from the stomach, through the tube, soon cleared up, showing neither viscosity nor turbidity until the duodenum was entered. When the tip and some of the tube become engaged in the duodenum, the aspirated fluid takes on a pearly, viscid appearance, with an alkaline or neutral reaction. We then inject the magnesium sulphate solution, and begin gentle aspiration. In nearly all the first change of color is a light yellowish green, though in a few cases the color has suddenly become a turbid green or yellowish black. As the tap progresses, if the color does not become more pronounced in 30 minutes, we again inject the magnesium sulphate. Two injections of this solution are generally sufficient, though in about 40 patients we have made the third injection. This applies to those who are robust or whose bowels are hard to move.

If the tap proceeds in a satisfactory manner, the fluid should soon assume a darker color, in some instances black and tarry, in others turbid yellow or green. Where there is present a duodenitis or a choledochitis, there is much flocculent sediment, rendering aspiration slow and difficult. If the aspirating bottles are changed several times during the seance the variations of color will be more distinctly noted. From the chronically infected gall-bladders and ducts will flow a dark green or dark yellow bile, sometimes of a tarry consistency, with many floculli appearing at intervals. The darkest bile is seldom ever over two ounces in quantity, and is followed by other bile, gradually lightening in color until the yellow, fresh liver bile appears. The last named marks the termination of the tap, for liver bile is obtained from the liver cells and can be recovered indefinitely.

#### Response of Patients to Taps.

Some respond quickly and easily, while others require much labor and patience to obtain adequate results. About a third of our patients pass the tube into the duodenum in less than half an hour, and the bile is flowing in less than 15 minutes later.

These generally get through with one or two injections of the 25 per cent solution, and require about 2 1-2 hours time. Approximately another third, being affected by a certain amount of duodenitis require much pumping in and aspirating out of small amounts of warm water to clear the ducts of mucus, flocculent sediment and, perhaps, many mucus plugs. When these are cleared out the rest is comparatively easy. The remaining third are slow in every way. The tube is slow to enter the duodenum, the mucus is hard to extract, the sphincter muscles of Oddi are slow to relax, and the gall-bladder itself lags in its contraction. These cases tax our patience and ingenuity. In only five have we failed to aspirate some bile, and in two of these the taps were satisfactory on the second and third effort. In the three, however, after the third trial without any results whatever, no other attempts were made.

We nearly always use the 25 per cent solution to begin with, but if the response is tardy, we follow it up with the 33 per cent, unless the patient is of frail physique. In achieving satisfactory results with some of these slow, difficult duodenal taps great patience and perseverance are necessary.

#### Frequency of Taps.

In a few instances where time was a desideratum, we have made daily taps on three or four successive days. It is best, however, to administer the taps on alternate days until three or four have been completed, and the others at intervals of five days to a week. Often we have advised the patients to have an additional tap every three or four weeks for several months.

#### Clinical Results.

Having pursued this method only since November, 1920, we hesitate to make claims too positive or dogmatic. We had four patients having cholecystitis, beginning treatment in the latter part of 1920, who were dismissed early in 1921, and who report that they have been well since that time. One of our migraine patients, a



young married woman, who had been having attacks every two weeks for ten years, had eleven taps, and has not had a headache since last May. Two of our gall-stone patients, though we informed them that surgery would be necessary wished to try out the taps, and each one claimed to feel better in many respects after each seance. One who was operated on for gall-stones is now with us again, and wishes a number of additional taps. On two inoperable cases, which were considered bad surgical risks because of angina and chronic nephritis, after several taps the stones seem to have become "latent," and have remained so for nearly a year. This of course is not a plea for the use of medical drainage in gall-stone cases, but merely a record of the results obtained in two inoperable patients.

Four who have suffered with chronic "biliousness" and constipation have apparently been cured of the constipation. The four cases of catarrhal jaundice cleared up in less than two weeks. This quick result we can not hope to duplicate every time.

About 55 per cent of our patients, who have received three or more taps, have seemed substantially benefited. About 15 per cent have seemed moderately improved. Five per cent have claimed no improvement whatever, and a few of this five per cent have denounced the whole procedure as a fake. The others are still under observation, some of them apparently improving, while the rest belong to that non-descript class called "drifters," of whom nothing positive can be said. On the whole, clinically speaking, we feel that our labors have not been in vain.

#### Permanence of Good Results.

This is a mooted question, and more time will be required for a definite answer. We believe that many cases of cholecystitis and choledochitis, either separate or combined, where there is no gross pathology present; can be permanently cured by this method. Some cases of migraine can either be cured or considerably mitigated. The comprehensive condition known as "biliousness" seemingly can be overcome to a marked extent. It would be a serious mis-

take to try out medical treatment in acute, urgent, virulent cases, acute or chronic empyema, or severe obstructive cases which will not drain.

We are often asked, "Will it be necessary to keep up these drainages at certain intervals for an indefinite length of time?" Our answer is, "Suppose it does. If by an occasional emptying from the gall-bladder static and pathologic bile the patient obtains relief lasting for several months, and this emptying neither produces prostration nor confinement in a hospital, why not continue as the occasion demands?"

Some gall-bladders tend to stasis for various reasons, some are intrinsically faulty, though perhaps not surgically so, and if by an occasional drainage of this gall-bladder it may be made to function satisfactorily, and its possessor made infinitely more comfortable, the fact that it should be kept up for quite a while should not militate against it as a clinical proposition. We have at present over a dozen patients, who voluntarily, and without our suggestion, occasionally come in for a duodenal tap, saying it makes them feel much better.

#### Conclusions.

The profession owes Meltzer a debt for his stimulation of the study of the liver. He has made us think, and has given us a new method.

The early papers seem perhaps over-enthusiastic and dogmatic, saying too little about the difficulties and limitations of the method. This will be corrected as time passes and as the pendulum swings. The physiology of the method, the course of color change, the action of the sulphate of magnesia on the gall-bladder, and the segregation of the bile, need further study to make more firm the foundation for clinical and diagnostic work.

If no dark or "B" bile is obtained on repeated drainages, properly performed, we may suspect cystic duct obstruction, frequently with gall-stones.

If no bile is obtained with proper drainage, but pancreatic ferments or blood are

found, common duct obstruction is probably present, which is suspicious of malignancy.

Gall-bladder sand may aid in the diagnosis of gall-stones, but in general is not characteristic.

We are not sure at present how completely this method empties the biliary passage in all cases, but in many it appears to do this very well. The best field for its use is in the milder grades of cholecystitis and choledochitis, where no marked obstruction exists.

It is unsuited for the treatment of acute, virulent infections of the gall-bladder. It may be occasionally useful in some of these cases when surgery is contraindicated, as in old people, or in cardiac, renal or diabetic patients.

Finally, we believe that non-surgical drainage of the gall-bladder possesses real potentialities for good, that this clinical method is here to stay, and that, within certain limitations, it will eventually be recognized by those who give the subject their thoughtful and sympathetic consideration.

### CHOLECYSTECTOMY VERSUS CHOLECYSTOSTOMY.\*

T. C. Davison, M. D.,

Visiting Surgeon to the Grady (Municipal) Hospital and Visiting Surgeon to the Georgia Baptist Hospital, Atlanta, Ga.

Before the removal of any organ, its physiological function, and the effect of its removal on the human economy, must be thoroughly understood. Therefore, I wish to discuss briefly the function of the gall bladder according to our present-day knowledge. There is a great diversity of opinion regarding the function of the gall bladder. Some contend that it is a vestigial organ without function (1), occupying a position similar to that of the appendix. Others believe that it is a reservoir for storing bile during the period of rest between meals.

It has been shown that the liver secretes

constantly, and that the output of bile for twenty-four hours is thirty-two to forty-eight ounces. The gall bladder holds about one ounce when at rest (2), though it may possibly hold more at times, but as a storehouse it is rather insignificant.

The musculature of the walls of the gall bladder is not sufficient to produce contractions strong enough to empty it of bile. No one has ever seen the gall bladder contract, and no one has ever found the normal gall bladder empty.

Sweet has advanced the theory that the pressure of the distended (3) stomach and intestines against the liver during digestion causes the gall bladder to empty its contents.

Rous and McMasters, of the Rockefeller Institute (4), have shown that the bile in the gall bladder is always six to ten times as rich in solids as the bile from the hepatic duct.

Harer, Hargis, and Van Meter, of the University of Pennsylvania, have demonstrated that the gall bladder is abundantly supplied with lymphatics. These lymph channels are found in the submucosa, as well as in the subserous coat, and they connect freely with the lymphatics of the liver.

The great concentration of the bile in the gall bladder can be explained by the fluids being taken up by this system of lymphatics, and possibly, to some extent, by the venous system.

The gall bladder, then, may be considered a dehydrating plant for the bile (4), causing a concentration before it is emptied into the intestinal tract.

This concentration predisposes to crystallization of the bile salts and to the formation of gall stones, the exciting factor being a cholecystitis and the presence of bacteria. Bacteria are frequently found in the center of gall stones (6), showing that cholecystitis without stones is the precursor of cholecystitis with stones. Cholecystitis or inflammation of the gall bladder is caused by infection which reaches it by one of four routes,—(a) descending from the liver in the bile stream,

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(b) ascending from the duodenum by the common and the cystic ducts, (c) by the blood stream, (d) or by a spreading infection through the walls of the gall bladder from an inflamed neighboring organ by way of the lymphatics.

Graham and Peterman (7), of St. Louis, have shown by microscopic examinations of the gall bladder removed at operation, that there are inflammatory changes not only in the mucosa, but also in the deeper layers, and that these changes are more pronounced in the deeper layers.

There is no direct evidence to support the theory that cholecystitis occurs, except occasionally, merely as a result of the entrance of bacteria into the lumen of the gall bladder. It has been shown by Cushing, Graham, Peterman and others (7) that the introduction of typhoid bacilli, colon bacilli and other virulent bacteria into the gall bladder did not often produce cholecystitis unless the cystic duct or the cystic artery were ligated, so as to produce a stasis.

(8) It is probable that bacteria gain access by the bile stream in most, if not in all cases of bacteremia; yet cholecystitis is comparatively rare in such conditions.

Rolleston (8) states that in typhoid fever the bacilli are always present in the gall bladder, but cholecystitis is comparatively infrequent. In Osler's series of 1,500 cases of typhoid fever, there were only nineteen cases of cholecystitis. Theoretically, the mere presence of bacteria within the lumen of the gall bladder should be of no more significance in producing cholecystitis than the presence of bacteria in the urine should imply cystitis in the urinary bladder.

How, then, may infection originate in walls of the gall bladder? There remains only two routes (7), the blood stream and the lymph channels.

Koch and Rosenow (9) advanced the theory of capillary emboli as a factor in typhoid cholecystitis. This was shown by Meyers and others by experiments on animals to be exceptionally rare.

There is little doubt that cholecystitis occasionally is hematogenous in origin, but this does not explain the cases of so-called "spontaneous cholecystitis," nor those associated with acute appendicitis, peptic ulcer, and suppurating hemorrhoids. It has been shown by Sudler (10) of Johns Hopkins, and others, that the intimate lymphatic connection between the liver and the gall bladder make it possible, and very probable, that an infection of the liver would tend to spread to the gall bladder by way of the lymphatics, and conversely an infection of the gall bladder would tend to spread not only to the liver, but also along the common duct by the lymphatics to the head of the pancreas.

Graham and Peterman (7) have shown that with cholecystitis we have an accompanying hepatitis.

Judd (11), of the Mayo Clinic, states that "cholecystitis rarely exists without a hepatitis."

Jno. B. Deaver (12), of Philadelphia, and Maugeret, of Paris, both are strong advocates of the lymphatic origin of chronic interstitial pancreatitis, which is a so common accompaniment of cholecystitis.

It would appear, from the above facts, that infection of the gall bladder reaches it only occasionally by the bile stream and the blood current, but most often by way of the lymphatics, and that in cholecystitis, with or without stones, the infection is located in the deeper structure of the gall bladder wall.

As to the operation of choice in a case of pathological gall bladder, the decision must rest on the merits of that particular case.

It is a well-known fact that the gall bladder is frequently a focus from which infection spreads to other organs and structures, at times producing lesions and symptoms which are apparently independent of gall bladder diseases, such as a multiple arthritis. In these cases, cholecystectomy is essential to relieve the condition.

In cholecystitis, with or without stones,

cholecystectomy is the operation of choice in a large majority of the cases.

Callstones are now considered the result of infection and not the cause of infection. When cholecystostomy is done for stones in the gall bladder, there is a recurrence in a certain percentage of cases.

In studying the records of two of our largest hospitals in Atlanta, I was impressed with the number of cases returning, on whom cholecystostomies had been done. Some were drained two and three times, many refused secondary operations because of the failure of the first to relieve their condition.

It would appear from the above that a drained gall bladder is a liability rather than an asset.

We occasionally find cases of carcinoma of the gall bladder and liver, which have undoubtedly resulted from unrecognized or unoperated inflammatory conditions of the gall bladder, and there is always a chance of cancer developing in the chronic gall bladders which are drained, even though the stones may have been removed.

Many surgeons hold the opinion that in acute inflammations of the gall bladder, such as empyema and gangrene, a cholecystectomy is not indicated and must never be done. It is my opinion that those are the most urgent cases for a cholecystectomy, provided the patient's condition will warrant the procedure. I practically always remove the gall bladder in these cases and drain the common or the hepatic duct.

With these facts in favor of removing the gall bladder, there are certain conditions and circumstances which demand that it be not removed. When there is any obstruction or injury to the common duct, in which there is no hope of re-establishing its function, the removal of the gall bladder would be fatal. In such a case, the only means of saving the patient's life would be to anastomose the gall bladder to either the stomach, the duodenum or the colon. In all cases of jaundice, with common duct obstruction, it is necessary to know whether it is temporary, permanent or progressive. When the patient's

condition is serious, the surgeon should select the operation which can be performed the quickest and which will endanger the life of the patient the least, even though another operation may later be necessary, for two operations with a living patient are to be desired, rather than one operation and a funeral.

### CONCLUSIONS.

(1) The physiological function of the gall bladder is to dehydrate and concentrate the bile.

(2) It is non-essential to health.

(3) In the large majority of cases of cholecystitis, the infection reaches the gall bladder by way of the lymphatics and not by the blood current or by the bile stream.

(4) The infection in cholecystitis is located principally in the deeper structures of the gall bladder walls and to a lesser extent only in the lumen.

(5) Draining the lumen of the gall bladder does not relieve cholecystitis in the majority of instances.

(6) In severe cases of inflammation of the gall bladder, where it is deemed necessary to drain rather than remove the organ, the operation should be considered a temporary measure only, and the gall bladder should be removed at a later but not too far distant operation.

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## DISCUSSION OF PAPERS ON GALL BLADDER.

Dr. W. F. Westmoreland, Atlanta:

Gall bladder surgery is, I guess, the worst thing the surgeon goes up against, especially the acute cases. In the acute cases I do not either operate or drain, and most get well. In the acute cases, frequently the liver is infected before the gall bladder, and when they are operated upon they will die, almost invariably. We cannot recognize that except by the fact, perhaps, that the patient dies. As to removal or non-removal, I leave it to the gall bladder itself. As to the effects of removing, I cannot say, for I have never removed one.

In operating for gall stones, where the mucous membrane is not invaded sufficiently to produce any thickening of the wall and where the bile is a normal color, all I do is take out the gall stones. I do not even wash the gall bladder, but simply sew it up and drop it back. I think often that the trauma of surgery changes the character of the infection and makes it more fulminating than before the operation, and those patients will often die from heart failure. We have lost such patients out of proportion to any other surgery in the abdomen. The kidney is a factor in nearly all of these cases, and probably the deciding factor so far as the fate of the patient is concerned.

Dr. Chas. Usher, Savannah, Ga.:

The gall bladder and its ducts is still a subject for debate. We can say with safety that the subject is far from being settled. There is scarcely a week that some one of the journals has not one or more articles on the diseases of the gall bladder and its ducts, or some operation on them. At almost every hospital conference this subject comes up for discussion—all of which goes to show that the subject is not "cut and dried." The etiology of the diseases of the gall bladder and its ducts is infection. It is said that every gall stone is a monument to the germ that lies buried within it. This infection is secondary. The primary cause is pneumonia, typhoid fever, appendicitis and general infections. Of course there are a few cases that are malignant. The infection rarely makes a direct attack on the gall bladder, but generally comes from the rear. The infection is generally by the lymphatics, the blood stream, but occasionally comes up direct from the intestine.

The function of the gall bladder is not very well known, but it is generally thought to be a useless organ—as the appendix. Germs taken from the gall bladder and injected into a living subject will produce cholecystitis. A gall bladder is not an essential organ, for some animals have none—the horse, deer and rhinoceros—and people live many years without gall bladders and have no discomfort, as far as we know, from its absence.

There are no diagnostic "points" by which one can differentiate gall stones from cholecystitis, or vice versa. A small per cent of the patients that I have seen in my practice and that of Dr. Geo. R. White's during the past twelve years would have symptoms of gall bladder disease, but the pathology would be in the pelvis. I believe it is advisable to make a vaginal examination before operation in cases where the diagnosis is not clearly a gall bladder case. I am also convinced that once the abdomen is opened, the gall bladder should be examined to see if there is any pathology there, for I have known it to be a fact on a number of occasions that stones or diseased gall bladders would be found in this way, and such were not suspected before operation.

The gall bladder is seldom drained any more. But it is advisable to drain in certain cases; for instance, the first attack, old age, pregnancy, jaundice and acute pancreatitis. The gall bladder is generally removed, as this is conceded to be the better operation. Whenever the glands in the foramen of Winslow are enlarged and the pancreas, stomach, and duodenum are negative, that gall bladder is a source of trouble and had better be removed. The incision that I have been using for the past six years, and which I believe admits better work and which is very easy to close, is as follows: At a point midway between the ensiform cartilage and the cartilages of the sternum, as one point, and another two inches to the right of the umbilicus—make the incision connecting these two points. Of course it is not necessary to make the incision this long in every case. Make the length depend on the case. Cut the fascia in this line, split the right rectus muscle with the top of the incision, that is, along the border of the ribs. Here the peritoneum is very thick, in fact, almost a muscle. This incision will give you ample room to do your work and is easily closed. It is well to put in some guy sutures before cutting the peritoneum, as markers. This incision is valuable in fat people. The wound is closed in three layers and three different planes. Therefore, it would be very hard to have a hernia develop here. There are many things to be considered when operating on the gall bladder, or its ducts. The pancreas, the stomach and appendix should be examined. Seven years ago I operated on my first case of pancreatitis and cholecystitis. Both were considerably enlarged. I drained the gall bladder. The patient is still well. Last year I saw another and followed the same procedure, with the same results. Sometimes a patient will return that has had a gall bladder removed with "the same pain" as before operation. These old cases who

keep on having their trouble are hard to explain. Frequently stones reform, and occasionally the stones are in the liver. Some of these cases that come in for a second operation are very interesting. Last year I had two such cases. One had an obstruction of the transverse colon from adhesions. The adhesions were freed and the patient remains well. The other had obstruction of the common duct from adhesions. The adhesions were freed and duct drained, and he remains well. These adhesions formed from where the gall bladder was removed. I don't know just how frequent abnormalities are in this region, but I have had one. This patient had an accessory duct which entered the gall bladder about the middle. I removed the gall bladder, which contained 14 stones. I began at the cystic duct and cut this accessory duct before I recognized what I had done, and when it kept on draining bile I found it and ligated it. The other ducts were normal and all right. This was in 1914, and the patient is still well. At this time there is considerable discussion about draining after gall bladder operations. Some advocate removing the gall bladder and closing the abdomen tight. I did this in five or six cases and got by with it, but stopped because I didn't think these were cases for closing without drainage. And now there are a good many reports where there was trouble after operations, and some have been lost. We don't drain for infection, but because the bile will leak. Some say the ligatures slip, and others think the bile pressure in the liver is great enough to cause an ooze. There is one thing we do know, and that is after a good many operations on the gall bladder where the cystic duct is tied, the next morning there will be bile stained dressings. I believe it is the consensus of opinion of the best men in the country to drain.

Dr. C. W. Roberts, Atlanta:

The surgeon unfortunately is not called upon to worry with the function of the gall bladder when confronted with a suffering patient. Already function has ceased, or has been greatly crippled. With the abdomen open, our duty concerns the question of determining the degree of permanent crippling, since on this point depends the operative procedure. In some 23 per cent of cases the surgeon cannot by inspection or palpation, tell whether the gall bladder is inwardly diseased. There is nothing outside to tell him. In another group, comprising about 33 per cent of the cases, the inflammatory process has reached that stage usually designated by the term "strawberry gall bladder," and characterized by a granular mucosa. Here the color of the viscus and the slowness of emptying by gentle squeezing suggests the state of the inflammatory process. In this group comes the incompressible gall bladders, filled with dark tarry bile—so-called "E" bile. One is led to wonder whether by the duodenal tap, à la Lyon, it is possible to aspirate bile from a bladder that resists direct squeezing.

When we encounter the largest group, comprising 43 per cent of the cases in which infection has spread outside the gall bladder and there are adhesions firmly binding the viscera of the upper right quadrant, you have a permanently crippled gall bladder, where function is already destroyed, and the question is not to try to save a functioning bladder, but rather to get rid of a functionless one. If you leave it in, you will have persisting trouble, although temporary improvement may follow drainage.

What are we to do in handling gall bladder cases in general? The answer to this is each man's individual problem. I cannot tell the other men what to do. All I would say is that it is a hard problem and falls heavy upon the conscientious surgeon. One has to study out a plan of action for himself. Usually one has to classify the case with the abdomen open before him and then proceed. It is human to err. Mistakes will be made. This problem lies at the pivotal point in the whole question of gall bladder surgery and will find its proper solution only when our various specialties are drawn by better understanding and a more sympathetic co-operation into that concert of action, so frequently referred to and popularized by our illustrious ex-president.

Science admits of no equivocation. Those physicians among us who are seekers after the truth, will neither sanction the removal of the gall bladder until the evidence is convincing, or permit unsound theories to lead us into ineffective therapeutic channels in that group of cases in which the brilliant achievements of modern surgery may play such a helpful part.

Dr. Geo. C. Mizell:

In regard to trans-duodenal drainage of the gall bladder, it may be said that no one yet knows whether or not this method will drain the gall bladder. In fact, the evidence is opposed to the idea that it will drain it. At the Mayo Clinic they have followed out extensive investigations to find out whether contraction of the gall bladder can be produced by application of various substances. Also, Bassler reports some observations. At Mayo's they introduced a tube under general anesthetic and then made observation with the abdomen open. No one has been able to detect a contraction in the gall bladder. What is said about contraction may also be said about the material supposed to be obtained from the gall bladder. It has not been proven where this material comes from. It has been stated at the Mayo Clinic that the flocculent material you get is from

the duodenum, and that its presence depends entirely upon the condition of the duodenum. The pendulum has probably already swung a little too far in favor of removal of the gall bladder. In the past there have been many recoveries after drainage, and that is one evidence that a damaged gall bladder can recover. I think that Rosenau has demonstrated the occurrence of gall stones from focal infections. I know that he has produced kidney stones from focal infection, and it appears to me that if kidney stones can be produced from focal infections, gall stones can be produced also. That, if true, will settle the question of the route of infection which leads to the production of gall stones; that is, that it takes place through the blood stream. He has done this in a most conclusive way, and after hearing him and seeing his demonstrations there is no question in my mind as to the correctness of his conclusions. These conclusions being true, we should not stop at drainage or even removal of the gall bladder, but prevent reinfection of the drained gall bladder by removing the focus of infection.

Dr. J. M. Poer, West Point:

Since hearing Dr. Niles' paper in Rome last year, I have had eight cases in which I have done a non-surgical drainage, and all but one have received benefit. This one case had an acute attack of bilious colic after the tube was removed, which, to my mind, answers the question as to where the material is coming from. I think there is no doubt that the bile comes from the liver, and every one has been greatly relieved. My experience is that the non-surgical treatment has given more permanent good than all the surgical treatment. Some of the cases have been drained three times, and some have had to have a cholecystectomy, and the after results have been most unsatisfactory, bringing me to the conclusion that surgery of the gall bladder is most unsatisfactory in every way. The patients are not satisfied, and are uncomfortable. The condition which causes stones exists after operation as well as before, and these patients could be better relieved by medicine than by surgical interference.

Dr. Nicolson, closing the discussion:

I have very little to say. Of course, the diagnosis I alluded to in my paper.

The interesting question comes up as to which operation is most satisfactory. I have several in my own mind. I think once a bad gall bladder, always a bad gall bladder. As long as a patient lives he drifts from one surgeon to another. I take out practically every gall bladder. I do not think that any man, by looking at a gall bladder, can tell whether or not it is diseased inside. Sometimes an apparently normal gall bladder is red all over inside and has patches of granulation all over. I believe the proper operation is the removal of the gall bladder. The one thing which I would like to impress upon those who remove the gall bladder is that the patient should have an alkaline condition of the body. He should be in the hospital two days before the operation. Personally, I prefer the Kalak water, having the patient drink a bottle every day. I have never seen a patient die from gall bladder operation after this treatment. Before that I saw them die of acidosis.

You see patients often with a totally obstructed duct, and it will stay obstructed and the mucus will stay in there. It will not stop if you wash it out temporarily, because it is forming somewhere and will come back.

Dr. Niles, closing the discussion:

In regard to Dr. Nicolson's remarks, I can only say, in the words of Tupper: "Few and precious be the words which the lips of wisdom utter. They be chance pearls which diligence delighteth to gather and hang around the neck of memory."

As to Dr. Poer's inquiry, we first get the sediment, flocculi, etc., from the duodenum, and some bile. Then we get a darker bile, which is called the "B" bile. That is of greater specific gravity. Then, finally, we get the "C" bile, which is the light bile from the liver cells.

Some one spoke of salt and soda. Of course, evacuation of the bowels is all right, but Moltzer made the point that sulphate of magnesia, to have any effect, must be applied directly to the duodenum.

I hope those who followed me will realize that I made no dogmatic claims. I do not want to do that. I say to you that there is something in this method. It is a new method, and some intelligent men are skeptical about it. They were also skeptical about x-ray. But as the pendulum swings, it will find its proper place and we shall be able to help our patients, especially some who are not fitted for surgery.

Dr. Davison, closing the discussion:

Dr. Westmoreland spoke of removing a physiologically functioning gall bladder. I do not think that anything has been said about removing a gall bladder that is functioning physiologically. We are speaking of pathological gall bladders. As Dr. Roberts said, each case must be decided on its merits. When a gall bladder is a menace to life and health I contend that it should be removed, just as you remove a bad appendix. We have records of cases who had cholecystectomies fifteen years ago, and who are in good health. An infected gall bladder is a focus of infection which may cause trouble; it is a liability and not an asset.

## MATERNAL MORTALITY.\*

C. A. Witmer, M. D.,

Waycross, Ga.

In the past thirty years deaths from many diseases have been cut to a fraction of their former tolls. Between the years 1890 and 1915 the death rate, per 100,000 population, for tuberculosis in the United States fell from 252 to 145.8; pneumonia, from 186.9 to 82.9; diphtheria, from 97.8 to 15.7; diarrhoea and enteritis under two years, from 139.1 to 59.5; typhoid fever, from 46.3 to 12.4.

The introduction of anesthesia, aseptic methods, preoperative treatment and technical skill have made surgery so safe that surgeons think little of doing an exploratory laparotomy to make a diagnosis; and even some obstetricians deliver their patients by Caesarian section on the slightest indications.

During the past five years most of the world has been at war. In this war all the diabolical means of torture and death ever conceived of by human beings have been to some extent employed. Millions of men have been wounded and sick. For the first time in history battle has caused more deaths among our soldiers than disease. According to weekly bulletin No. 58, of the Chief Surgeon of the A. E. F., "of the cases of disease, 90.2 per cent returned to duty, 6.0 per cent were invalided home, 3.3 per cent died in hospital, and 0.4 per cent deserted."

Yet in this day of progress and scientific medicine, the act of becoming a mother remains as deadly for the average woman as it was before the discovery of anaesthesia and the introduction of antiseptic methods. The present maternal mortality is the greatest medical crime of today. A small group of physicians interested in obstetrics and the diseases of women have long appreciated that most of the deaths are preventable. In their own work puerperal sepsis is almost an unknown condition except as it is seen in consultation. Very few deaths from other causes of the puerperal state occur among the women

\*Read before the Eleventh District Medical Society.



they have carried through the entire period of pregnancy, labor and the puerperium. The work of these physicians is ample proof that the present mortality is not due to the lack of scientific knowledge regarding obstetrical problems, but rather from failure to apply this knowledge. Women have always accepted the mortality and morbidity of childbirth as a sacrifice which they must lay on the altar of motherhood. The function of woman has always been cloaked with fatalism and guided by ignorance.

Between the ages of 15 and 45 childbirth is the second greatest cause of death among women. For the year 1915, in the registration area of the United States, there were, among women of these ages, 29,200 deaths from tuberculosis; 10,134 from childbirth, of which 4,173 were from puerperal sepsis; 8,766 from various circulatory disturbances; 5,549 from pneumonia; 5,424 from cancer and other malignant tumors; while for these ages syphilis was reported as the cause of death 647 times and gonorrhea 174 times.

Mortality statistics are always more or less inaccurate. Most writers believe the deaths from childbirth considerably greater than indicated by the above figures. However, we may assume that the errors will average up from year to year, and that similar errors will be made here and abroad.

Dr. Meigs, in preparing her bulletin on maternal mortality for the Children's Bureau of the Department of Labor, studied the mortality records of sixteen countries. In deaths from puerperal sepsis the United States was fourteenth on the list. Only two, Switzerland and Spain, showed a higher death rate per 100,000 population. It is unfortunate that the death rate from puerperal sepsis and other diseases caused by pregnancy and confinement has been estimated only per 100,000 men, women and children. The death rate per 1,000 live births in the United States is only available for the year 1910; during this year, one mother was lost for every 154 babies born alive. In Belgium for the same

year, the ratio was one maternal death for every 172 live births, and in Spain one to every 175. Sweden, on the other hand, had a record of one mother lost to every 430 live births.

Statistics show that grouping all women of the child-bearing age together, tuberculosis alone is more deadly than child birth. But, if we leave out of consideration the ignorant foreign and the tenement population, among whom tuberculosis is so deadly, childbirth leaps to the front.

It is generally conceded that the type of man who carries life insurance with any of the old line insurance companies is representative of our best citizens. From the records of these companies we may hope to get some idea as to the relative frequency of death from different causes among the typical American citizens.

The family histories of five thousand applicants for life insurance, both declined and accepted risks were included, show that one man for every 17 who applied for insurance had a mother or sister or both who died from the immediate effects of childbirth; one in 27 from tuberculosis, and one in 47 from cancer or other malignant tumor.

It is probable that a study of 100,000 applicants would modify this ratio to some extent, but checking the applications thousand by thousand as the series grew, it is found that childbirth always remained in the lead. Nor was there a great variation in the different years from which applications were studied.

We have long appreciated that our hospitals were constructed for the very poor and the well to do, but are we prepared to believe that childbirth is so fatal to the mothers and sisters of the average American citizen?

Have we, as members of this society, realized the present mortality from childbirth? If so, have we done our best toward bettering conditions?

In the city of Chicago, with all of its wonderful hospitals, there are available for obstetric cases less than 10 per cent of

the number of beds necessary should all the women desire to be confined in a hospital.

Mortality statistics show that in 1916, 179 women died from puerperal sepsis and 220 from other puerperal affections.

Figures may be juggled, but the fact remains today that maternal mortality is the greatest medical crime. However, destructive criticism is of itself useless. The profession may plead for lenience when charged with a crime of which it is not aware, but ignorance of the fact excuses no man if he has failed in his duty. It is the duty of every physician who undertakes to confine a woman to give her the best of his skill. If he does not possess much skill, then he can at least give her a clean delivery.

Obstetrics has always been the most exhausting branch of medicine and the poorest paid. That being the case, it was only natural that as the numerous commercial schools of medicine were developed it was difficult to persuade a doctor that obstetrics would bring him a lucrative practice.

You are all familiar with the way those schools gave over a large part of their work to grandstand clinics in major surgery.

I believe the teaching of obstetrics is gradually being improved, but I believe it is still the poorest taught subject in the average medical school. As an undergraduate I saw comparatively few deliveries. I believe the graduate of today sees quite a number, but at the same time does not see or help with nearly enough.

The man who enters general practice, and a majority of our graduates do, must of necessity do more or less obstetrics. He must get his obstetrical knowledge as an undergraduate or as a hospital interne. The average interne gets little or no obstetrical experience and goes into practice with only the superficial knowledge gained as undergraduate. The present high maternal mortality is the logical result.

The American people must be informed regarding the dangers from the lack of

surgical cleanliness and reasonable skill in the lying in room.

Hospital beds will not be forthcoming until women are educated to the fact that there is as much reason for going to a hospital to have a baby as there is for most of the surgical operations.

"Make the world safe for democracy" is a popular slogan, and there is not one of us who would not fight to the last to protect our women from the horrors of an invasion such as the women of France and Belgium suffered during the late war, and yet we sit calmly and ignore the crime at the door of our own profession.

### APOTHESINE.\*

W. M. Folks, M. D., F. A. C. S.

Waycross, Ga.

The introduction of synthetic anesthetics marks one of the most important events in chemical research. Its application to surgery is of no less importance than that of chloroform or ether. A local anesthetic is no longer considered to be the choice in minor surgery alone, for it has found its place in a large group of major operations where a general anesthetic is attended with more or less danger or distinctly contraindicated.

The best success depends in a large measure upon the anesthetic to be used. The ideal preparation should possess the minimum toxicity, free solubility, sterility, and unvarying activity in producing complete analgesia when properly applied. A wide experience in the use of Apotheresine has convinced me that this agent comes the nearest to fulfilling all the requirements of such a product.

Apothesine occurs in the form of small white crystals, readily soluble in water. It is a combination of cinnamic acid and propyl alcohol, and is said to be about one-fifth as toxic as cocaine.

Macht (1) has demonstrated that Apotheresine is distinctly antiseptic in solutions of 0.5 per cent and bactericidal in solutions of from 1 to 2 per cent. This is a very important advantage that Apothe-

\*Read before the Eleventh District Medical Society.



sine offers over other similar chemical agents.

The proper administration of a local anesthetic is not to be considered a simple procedure. Those who have been most successful in performing the largest number and greater variety of operations are the surgeons who give the most thought to technique of administration, whether infiltration, nerve block or spinal analgesia.

Hanger (2) insists that the essential element in local anesthetic work is to destroy temporarily or paralyze a nerve so that its sensation bearing function is interrupted for a period sufficiently long to carry out the ordinary operative procedures.

Infiltration and conduction anesthesia seem to lend themselves to the same general group of operations, especially those where deep structures are involved in the field of operation.

The infiltration method may be the one of choice for primary incisions and the excision of superficial structures. As the operation advances the nerve trunks may be reached by the long needle, thereby anesthetizing a more extensive area by a minimum number of injections by the smallest possible quantity of the anesthetic solution.

Braun (3) states that the chief points of the technique of local anesthesia are the infiltration of the field of operation, the blocking of the sensory nerve paths, and where it is possible a combination of the two methods with a direct infiltration of the line of incision.

Wiener (4) reported 250 major operations under local anesthesia, and stated that instead of seeking the indication for local anesthesia we will rather question in every case the indication for ether.

Allen (5) has wisely directed attention to the importance of first becoming thoroughly familiar with the source and foundation of the nerve supply in the region to be operated. He claims that it is one of the fundamental factors of success. He

also dwells on the necessity of refinement of technique.

Caldwell (6) reports, among other cases, eight major amputations under local anesthesia, using one and one-half per cent. Apotherine by the infiltration and conduction methods with excellent results.

In operating below the umbilicus a number of prominent surgeons have nothing but praise for spinal anesthesia.

Thompson and Nagel (7) referred to the use of spinal anesthesia in approximately 1,000 cases covering a period of ten years. They claim that only one death occurred that could be attributed to the anesthetic. They maintain that the physiologic action of the agent on the functions of the body depends on the drugs used and on the strength of the solution, also the interval between injections and the establishment of a sufficient degree of analgesia.

Delaup (8) has operated over five thousand cases under spinal anesthesia which ordinarily would have demanded general anesthesia. He prefers the spinal to general anesthesia for surgery below the umbilical line. In cases of lesser importance he employs local infiltration, using one-half to one per cent of Apotherine. Anesthesia is produced in one to three minutes and lasts thirty to forty-five minutes.

Kahle (9) reports 403 cases, including a variety of operations that lend themselves to spinal analgesia. One and one-quarter grains of Apotherine dissolved in 1 Cc. distilled water and boiled for two minutes. He then aspirates 1 Cc. of spinal fluid and replaces this with the 1 Cc. anesthetic solution. Analgesia is complete in from one to three minutes and lasts from one to two and one-half hours.

Halsted (10) places considerable importance upon the technique for spinal anesthesia, although he claims that this is comparatively simple in the hands of one qualified in surgical procedure and should prove uniformly successful, and he offers the following indication for using this method of analgesia:

First:—Those cases where for any reason a general anesthetic is not considered

safe, e. g., in intestinal obstruction with fecal vomiting. In general peritonitis, for the same reasons. Also in strangulated hernias, and in operations in old people, such as prostatectomy.

Second:—In traumatic surgery of the lower extremities, in crushing injuries. The solution injected into the spinal canal not alone produces analgesia, but in doing so also blocks the sensory tracts of the cord and lessens shock.

Third:—In disarticulations of the hip or in high amputation for conditions not depending upon trauma. These operations can be carried out with much less shock than if a general anesthetic is employed.

As stated in a former report ("Local Anesthesia"—Journal of the Medical Association of Georgia, February, 1922), which I presented to the Eleventh Congressional District Medical Association, Brunswick, Ga., the patient's mental attitude is a very important factor in all of this work. Surgeons must acquire the confidence of the patient in overcoming the fear of pain and the knowledge of everything that is going on during the operation. It is much easier to dispel this than the fear and dread of the general anesthetic. If once this confidence is established, it should not be destroyed. Unnecessary noise, activity and handling of instruments should be avoided. Every surgeon should be skilled in every phase of local anesthesia and this cannot be acquired without experience.

When a patient exhibits signs of alarm or nervousness during the administration of a local anesthetic or at the beginning of the operation, it is a good plan to have a nurse or some one in attendance remain close to the patient's head offering comfort and words of confidence. It is surprising at times what a beneficial influence this will have on some individuals.

Many operations can be successfully done under local where a general anesthetic should not be attempted under any consideration. Many other cases can be successfully operated, avoiding unnecessary hazards and post-operative complications. Any surgeon who is not prepared to offer this

to his patients is depriving them of one of the most important advantages of modern surgical procedure.

(1) "A Study of the Antiseptic Action of Certain Local Anesthetics," by David I. Macht, Y. Satani and Ernest O. Swartz. Published in "Journal of Urology," August, 1920, p. 347-361.

(2) "Acute Hyperplasia of Thyroid With Dyspnea," by J. R. Harger, M. D., Chicago, Ill. Published in "Surgical Clinics of Chicago," December, 1919, p. 1417.

(3) "Lokal Anesthesia"—Vierte Auflage, by H. Braun. Reprinted "Illinois Medical Journal," May, 1917, p. 295-299.

(4) "Two Hundred and Fifty Major Operations Under Local Anesthesia," by Joseph Wiener, M. D., New York, N. Y. Published in "Medical Record," January 25, 1919.

(5) "Apothesine—A New Local Anesthetic," by Carroll W. Allen, M. D., New Orleans, La. Published in "New Orleans Medical and Surgical Journal," March, 1917, Vol. 69, p. 623.

(6) "Local Anesthesia in Major Operations," by C. E. Caldwell, M. D., Cincinnati, Ohio. Published in "Cincinnati Journal of Medicine," December, 1920.

(7) "Spinal Anesthesia in General and Genito-Urinary Surgery," by Geo. F. Thompson, M. D., and J. S. Nagel, M. D., Chicago, Ill. Published in "The Illinois Medical Journal," August, 1919, p. 62.

(8) "Apothesine in Spinal Anesthesia," by Sidney P. Delaup, M. D., New Orleans, La. Published in "New Orleans Medical and Surgical Journal," April, 1920, p. 595.

(9) "Spinal Analgesia With a New Local Anesthetic," by P. Jorda Kahle, M. D., New Orleans, La. Published in "New Orleans Medical and Surgical Journal," February, 1919, p. 366-7.

(10) "Spinal Analgesia," by A. E. Halstad, M. D., Chicago, Ill. Published in "International Journal of Surgery," April, 1920, p. 114.

## SPINAL ANESTHESIA OR ANALGESIA

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The conclusions of this paper have been arrived at through my personal experience of 300 cases of spinal analgesia, by far the greatest number of these cases having been abdominal and pelvic operations on the female generative organs; namely, hysterectomies, pan-hysterectomies, appendectomies, salpingectomies, salpingoophorectomies, myomectomies; also hemorrhoidectomies, perineorrhaphies, trachelorrhaphies, etc. In bringing the subject before you for your consideration I want to emphasize in the beginning that it is not my purpose to try to convince you that spinal analgesia should supplant general or local anesthesia in all surgical risks, but to show that it ought to have, and does have, a very definite place in surgery.

In discussing spinal anesthesia with surgeons, a good majority of them admit that it is a good thing in selected cases, but consider the selection should usually be confined to those that could not under any conditions stand a general anesthetic. Now if it will do for the bad cases, why



will it not do equally as well, or better, for the good ones?

Spinal analgesia is not to be considered the anesthesia of choice in all operations for several good reasons, the most important of which is that it can be safely used only in those operations done below the diaphragm.

I have used many drugs in spinal analgesia in an effort to find out just which one is best suited to all cases. Cocaine once, never again. Apotherine, in about 60 cases, the results being good in all, though the drug is a little slow in its action, the absence of toxic symptoms, however, more than compensating for the time lost in waiting for it to take effect. Tropacocaine is an excellent agent for use in spinal analgesia. It acts immediately, seems but slightly toxic, and its effects will last sufficiently long to do the most complicated operations. I did one case with two mins. acid carbolio and 5 c. c. 25 per cent solution epsom salts. After waiting for fifteen minutes I had good anesthesia and did a vaginal hysterectomy, but was scared to hear the 'phone ring until I saw her up and walking. Novocain and stovain seem to be about on a par as to toxicity, and the anesthesia induced by them is of about the same duration, the patient reacts more quickly after their use, and I have had practically no shock in cases in which they have been used.

I have used spinal analgesia in one case of obstetrics with very good results. I have used it in several major operations at the home, a procedure I do not advocate and one which I do not intend to adopt again; the results have been all that I could ask, but the risk is too much for the satisfaction derived. There is no use saying there is no danger, for there is, just as there is in any anesthetic; and if anything should happen then, of course, there would be a lawsuit, and while I do not believe that the grounds for a lawsuit from the administration of spinal analgesia would be any more than from inhalation anesthesia, yet the plaintiff would have no trouble in procuring expert testimony to

the effect that the proper diligence had not been observed, or that bad surgical judgment had been displayed, and that spinal analgesia was just an experiment anyway.

An analysis of the 300 cases done under spinal analgesia shows that but one patient has died whose death I could attribute directly to the anesthetic, and she was suffering from advanced carcinoma of cervix, with continuous bleeding for six months, a very low hemoglobin, a systolic blood pressure of 100 and a diastolic reading of 90. No operation should have been attempted, as I am certain she would have died unassisted in a few weeks anyway.

In several cases, especially those where I had given as much as one-fourth grain morphine before hand, the respiration would become very shallow and slow, and I could not feel a radial pulse. For this condition I would have 15 mins. adrenalin 1-100 given intravenously, and almost immediately the pulse and respiration would pick right up and patient would become normal again.

I am frequently confronted with this argument, "I am afraid of spinal analgesia because when you put it in you can't take it out." Neither can you take out inhalation anesthesia. On the other hand, you can take out the spinal analgesic, if you want to, because I have tried it. In the case of a big negro man, a patient in the Grady Hospital, I gave one grain of stovain dissolved in spinal fluid and in a few minutes he complained of his hands and arms going to sleep and of nausea. He became pulseless, turned a pale ashy hue, and his respiration dropped down to six a minute. We gave him adrenalin intravenously, also artificial respiration to no avail. I thought he was as good as dead. I had him turned over on his side, inserted a spinal needle, and drew off 15 c. c. of milky looking spinal fluid. I then put 15 c. c. normal saline with 15 mims. adrenalin back in the spinal canal. In a few minutes he began to breathe better, and we could get a pretty good heart beat by use of stethoscope and in course of an hour or

two he was apparently normal and was operated on a few days later with inhalation anesthesia.

There is a wide variance of opinions regarding blood pressure in spinal analgesia. It has not been my experience that there is a sudden dropping of the blood pressure in those cases where I have had it carefully taken just before, during, and after operation. The systolic pressure has not varied as much as 10 m. m., but the systolic and diastolic have been found much closer together showing a reduction in pulse pressure.

The contra-indications that I have found for doing spinal analgesia are very low pulse pressure, loss of blood as in advanced carcinoma of cervix or large macerated wounds such as are due to having the legs crushed off by train, and advanced age.

In the beginning I had considerable trouble in getting uniform results from spinal analgesia, but the more I used it the more I became convinced that it was the technique and not the principle. I have learned thru experience the following factors are necessary to make up a satisfactory technique: Get a patient, get his or her confidence, tell them you are not going to put them to sleep, you are going to operate without any pain, and they are not going to have nausea and vomiting and that they can have water and diet right after operation. Have 1-6 grain morphine given 30 mins. before spinal analgesia. Have good anesthetist present and never start operating without one. Make a careful selection and inspection of spinal needle to be used. I have a couple of patients walking around now with an inch and a half or two inches of steel needle sticking in the region of their spine somewhere. It has never hurt them, and they do not know it, and I am going on the assumption that what they don't know won't hurt them. I have found it better to use a needle of silver alloy that is flexible and that will bend and not break.

The patient should sit flat on the table with arms folded across body in front and back hunched slightly forward, the lumbar

region painted with Tr. Iodine, the space between first and second lumbar vertebrae located usually by pressing thumb nail in the center of back on a line drawn between the iliac crests, when the little depression is located inject the skin with a few mims. of a 1 per cent novocain solution. This has helped me a great deal because it relieves the pain of the thrust of the large spinal needle, and keeps the patient from becoming afraid and nervous.

We are ready to do the spinal puncture. Thrust the spinal needle in mid line between first and second lumbar vertebrae and push steadily until the point strikes the body of the vertebrae, or you feel the needle slip thru the membrane of the canal. If the point strikes the body the point should be raised or lowered until it is felt to slip thru opening between the vertebrae. If the first, second or third lumbar inter spaces are used for the puncture it is almost impossible to do any damage to the cord by sticking a needle into the canal because the cord divides into the cauda equina just above or on a line with the first lumbar vertebrae. When the needle is in the canal withdraw the stylet and get a free flow of spinal fluid. Do not put in the anesthetic agent unless the fluid runs freely, for if you do the technique is faulty and the results are not going to be what you would want. If necessary, withdraw the needle and do the puncture over again. I do not believe in dry taps or in scarcity of fluid.

The patient should lie on the table with a pillow under the hips and head, the object is to get the anesthetic agent to the dorsal curve of the spine, certainly as high as the fifth and sixth dorsal nerves. If we use a solution heavier than the spinal fluid it is necessary to raise the pelvis of the patient so gravity would cause the heavy solution to flow toward the most dependent portion of the spinal canal.

In the use of spinal analgesia where the technique is properly carried out there is a perfect anesthesia from the umbilicus down in from two to ten minutes, lasting from 45 minutes to an hour and one-half.



I find it an ideal anesthetic in pelvic and abdominal work; the relaxation is perfect, shock is practically absent, and the risk of inhalation pneumonia is done away with; although I do not recall a single case of post-operative pneumonia that I could attribute to inhalation anesthesia. The nausea and vomiting that so regularly follow inhalation anesthesia is largely, though not entirely, done away with. One point I would like to call attention to in the use of stovain and that is the regularity of the attack of nausea that comes on with the loss of sensation of lower extremities. In the majority of cases it lasts only a few minutes, but it nearly always occurs.

I find spinal analgesia an especially useful agent in that class of cases with bad heart and kidney lesions; also in advanced tuberculosis, and many times cases of this nature that are considered poor surgical risks where an inhalation anesthetic is involved can be properly and successfully operated upon with spinal analgesia.

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#### OPERABILITY.\*

A. B. Patton,  
Athens, Ga.

Only one phase of operability is to be considered; the likelihood of the patient's body successfully withstanding the injury of the operation, or we may include childbirth. It is necessary to determine whether a man's (or woman's) organs have enough functional resiliency to "weather" an operation, with its attendant poisoning from anaesthetic, privation of food for a period, and that intangible but ever important element of shock, or the overload of toxins for elimination, or circulatory burden and strain of pregnancy and childbirth.

Operability is predicated upon physical efficiency, and efficiency of human organs cannot be expressed in figures, yet our duty is to reinforce that intangible summary of the patient that we all instinctively make, call it what you will, temperament, predilection to disease, type or what not, with

all that is possible in laboratory technique. Knowledge of the functional ability of the kidneys, of the heart, and of other organs may determine extent of operation and type of anaesthetic, if operative treatment is not postponed or abandoned altogether; and particularly in pregnancy it may warn us of dangers to be avoided or met intelligently.

The most remarkable thing about healthy organs, what little we know of a few of them, is their ability to overwork, to respond to more than their every-day demands, and to continue that response, and then the return to normal. The heart is our best example of this ability, perhaps, because we can more accurately measure its work than that of other organs.

We may look forward to a time when tests of operability will begin with one showing infallibly the presence or absence of syphilis. At present the fairly reliable blood Wassermann is accessible to anyone who sends or receives mail, and should be as much a routine as the urine analysis before operation or confinement, or better, before pregnancy takes place, in the presence of any unexplained symptom.

I shall not discuss the tests requiring intricate laboratory apparatus as the polygraph, electrocardiograph, and blood gas machines, to which all of us have not access. The simpler tests will often tell as much about condition.

We gauge the heart's reserve power by its behavior in response to added demand. That ability to meet demand may be impaired by valve deformity, by adhesions to its covering, by actual muscle disease or ischemia, or by derangement of nerve control; but its efficiency as a heart depends on its usefulness, not on murmurs and thrills and friction rubs. These may influence, but they do not determine, function.

Probably the simplest test of heart function is the length of time a patient can hold his breath, the so-called "Russian test," which puts strain on the myocardium, especially of the right ventricle. A reduction of that time below 15 seconds, in

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\*Read at the meeting of the Eighth District Medical Society, Hartwell, Ga., Aug. 9, 1922.

the absence of advanced lung disease or anemia, would show a weakened heart muscle. In this, as in other exercises, the patient must understand the object of the test and nervous elements must be eliminated. He must also co-operate.

The sphygmomanometer, of all instruments, probably gives the best idea of the work the heart is actually doing. The systolic pressure means heart energy put forth, plus arterial and capillary resistance; the diastolic pressure means that resistance plus a certain small amount of heart muscle tonus; the pulse pressure or difference between systolic and diastolic, means actual heart force exerted.

Systolic and diastolic pressures vary in health and disease with vessel wall condition, tonus, and nerve control, stimulants, food, and mental state, but normally systolic, diastolic and pulse pressure should be somewhere in the ratio of 3—2—1. These figures are of course approximate, but a relative increase of pulse pressure means usually strain on the myocardium; rising pulse pressure, with falling diastolic is a sign of heart distress; and a marked fall of both systolic and diastolic pressure means approaching collapse. A falling pulse pressure means diminishing heart work, and this, with a rising pulse rate, is ominous. Heart irregularity is always suspicious, especially if it increases or does not disappear on moderate exertion, and precordial pain or exertion in the middle-aged or old must be proven not to be a mild angina pectoris—always a sign of serious heart weakness.

Regarding the kidneys, no single urine analysis, even in the absence of albumen, sugar, acetone and casts, definitely rules out disease, nor does any single functional test. An increase of night urine over 400 cc. and fixation of specific gravity usually mean some impairment. Normally the specific gravity should show a variation between specimens voided at different times of day, of several points; and lack of that variation between night and morning urine with decrease of solids, means kidney disease.

The phthalein test is, probably our most popular test of excretion, consists in the intramuscular injection of a dye, practically all of which is excreted unchanged by the kidneys at a given rate. The excretion should begin within ten minutes, and 60 to 85 per cent of the amount injected should be voided in two hours. The main objections to the test are that sometimes it is not absorbed promptly from the site of injection, in which case it may be given intravenously by those who care to put foreign bodies in the vein; also that phenolsulphonephthalein is not a normal excretory product. This test is particularly unreliable in early chronic nephritis.

The urea test shows how promptly the kidneys excrete a normal urinary element. Fifteen grams of urea are given in solution and urea concentration determined in the urine, passed after two hours, control estimation of urea having been made on urine passed the same morning before taking urea. The estimation is not intricate, as determined by the urease method, requiring only accurate measurement of specimens, and titration against decinormal hydrochloric acid. The test substance is unpleasant but harmless in this amount, and it is a normal end product of metabolism. Kidneys that do not show definite increase in urea are diseased.

The water feshet test is also of value. Give one pint of water on an empty stomach, then collect and test specific gravity at one hour intervals. Normally a pint is passed within three hours and the specific gravity reading at two hours is the lowest of the series. If excretion is delayed, or the gravity shows no change, the kidneys are involved, provided that the lower urinary tract is patent.

Kidney excretory products may be accurately determined in the blood, but this work is tedious, difficult and requires a well equipped laboratory; and the farther into mathematics we get, the farther we are from the patient, usually. Tests of liver and pancreatic function are open to the same objection, and we know little of their percentages and end products—and



these end products are not accessible.

We have many tests of endocrine function—too many. The degree of basal metabolism seems to indicate thyroid activity, or fever, or mental excitement, or something. Just what it means, or how or why, we don't know; and the same is true of many other tests. The thyroid feeding test is mentioned only to be condemned. The extract is inaccurately prepared, is not assayable, and its action is very slow and prolonged over weeks, during which time nothing will counteract a bad effect, which may, and often is, permanent.

Ordinarily it would seem that the simpler and the more normal a given functional examination, and the oftener we apply that examination, the better we can judge the patient's condition, never losing sight of the personal equation in that patient, which goes far toward determining his ability to withstand stress and strain. We cannot predict definitely, of course, the result of operation or childbirth with or without functional tests; but the more we know of the patient and his organs, the better we can plan for him.

#### DISCUSSION.

Dr. C. W. Roberts, Atlanta.

Pituitrin  $h_2^2$  come to be an indispensable drug to the surgeon, I think, although cannot go quite as far as Dr. Pate in the use of it. I personally dislike the idea, in my own work, of speaking of pituitrin as "Surgical Pituitrin," which means a preparation twice as strong as so-called "Obstetrical Pituitrin." I question the necessity of using so strong a preparation, not to mention the danger possessed by so potent a remedy.

If Dr. Pate will use obstetrical pituitrin in one-half c.c. doses, I think he will get the same results which he has quoted. I do not use it in the early hours following operations, particularly when general anesthesia has been used, since a paresis of the bowels follows for the first thirty-six hours, and if one injects pituitrin before the lapse of thirty-six hours, little benefit will be accomplished. Personally, I always specify obstetrical pituitrin, and more frequently split the ampules in half and give one-half c.c. and repeat every two hours for three or four doses, beginning, of course, thirty-six hours after operation. An ordinary enema is given at the end of forty-eight hours, when usually a satisfactory gas and fecal movement will result.

Dr. W. A. Selman, Atlanta:

Any agent as powerful as pituitrin is quite an aid in the surgical field, just as the obstetricians have found it an aid at certain times in obstetrics. I merely want to speak about septic cases. It is our object, in those cases, to prevent what we give pituitrin to accomplish in other cases. In septic cases we want to keep the bowels quiet, and the first forty-eight hours is when we want to put on the hot stupes and give morphine. After that you can give the pituitrin to get a bowel movement, and I have not seen any very different results.

Pituitrin tones up the heart, as well as the uterus and the unstriped muscular tissue.

## THE USE OF PITUITRIN IN ABDOMINAL SURGERY.\*

Julien C. Pate, M. D.,  
Macon, Ga.

The pituitary gland has always been an enigma to the anatomist, and various theories have been advanced from time to time to explain its office. As you well know, it is located at the base of the brain, in the sella turcica of the sphenoid bone, and consist of two lobes, a large, anterior lobe and a small, posterior lobe. Both lobes are ensheathed in a capsule derived from the dura mater and are connected by a stalk.

Pituitrin, which is made by Parke, Davis & Company, is an extract of the posterior portion of the pituitary gland, and is offered in a form ready for hypodermatic use.

The above company puts up two different ampules of pituitrin, known as Surgical Pituitrin and Obstetrical Pituitrin—the only difference is that of strength, the former, being twice the strength of the latter.

In this paper, I shall deal with Surgical Pituitrin only.

The most troublesome symptom following laparotomies is undoubtedly the condition known as "gas pains." The convalescence even from the most trivial operations is often made unbearable by the discomfort due to delayed peristalsis, the paralysis that results from insults to the nerve supply of the abdominal organs.

These cases usually require the use of morphine. As a rule, there is very little objection to the use of small hypodermics of morphine after operation, but its use delays starting up of peristalsis.

The gas pains, as you well know, last about two to six days, depending on a variety of circumstances. If peritonitis is of much more serious import, and we are confronted with the danger of that condition of intestinal paralysis with great distention, and persistent vomiting that marks the fatal termination of such cases.

During the last six years in my surgical

\*Read before the Medical Association of Georgia, Columbus, Ga., May 3-5, 1922.

work I have been using pituitrin (surgical) as follows in abdominal surgery:

About four or five hours after the patient rallies from the anesthesia, I give one ampule of pituitrin hypodermically, and repeat same every four hours until the third day, then give it three times daily, and leave off.

After this I give a mild purgative, preferably milk of magnesia, to clean out the bowels.

During this whole period the abdomen remains soft, and the patient does not complain at all from pressure symptoms. From the results of the injection in these cases it is evident that pituitrin has a very marked effect upon the muscular coats of the bowel, and that it is able to overcome the temporary paralysis due to exposure. This is shown by the early passage of flatus and by the absence of abdominal discomfort.

I have used pituitrin in all cases, where I was dealing with the intra-abdominal organs, and I never had anything but the best results, as far as I could ascertain. All of these patients pass flatus freely within a few minutes after each injection. Occasionally I pass a rectal tube after each hypo, so as to assist the system in the expulsion of this gas.

I have also found that the pulse rate remains much lower than usual, and after some of the severest operations it did not exceed 82 per minute. In my entire experience with pituitrin, I do not believe that I have had retention of urine, and so catheterization was unnecessary.

I am beginning more and more to depend on pituitrin in my abdominal surgery to keep the patient comfortable, and find that I rarely ever have to use over one hypodermic of morphia.

I have seen some remarkable results from pituitrin where septic peritonitis was a complication, but I must admit that my results in these cases were not as good as those in non-septic cases.

From the records, I find that I have used pituitrin in the following abdominal operations, with the aforesaid results, namely:

oophorectomy, single or double; salpingeoophorectomy, single or double; salpingectomy for ruptured extra uterine pregnancy, gastro-enterostomy, strangulated hernia, intestinal obstruction, gall bladder operations for stones, drainage and resection, supra-pubic cystotomy, lateral anastomosis of the intestine, and splenectomy.

From the above I have drawn the following conclusions:

(1) Pituitrin is a valuable drug in stimulating the muscular coat of the intestine after abdominal section to dispose of flatus.

(2) It is a decided aid in preventing post-operative shock in non-septic cases, as evidenced by lack of rise of temperature or pulse rate.

(3) It does not have near the effect in septic cases as in non-septic cases.

(4) It stimulates the secretory activity of the kidneys and stimulates the muscular coat of the bladder.

(5) It materially reduces the post-operative suffering.

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#### DOUBLE UTERUS.\*

H. W. Birdsong, M. D.

Visiting Surgeon to Athens General Hospital.  
Athens, Georgia.

A very rare case, and one that is interesting from several standpoints, is that of a double uterus which came under my observation a short time ago. The case follows:

Mrs. S., housewife, aged 47 years, entered Athens General Hospital May 16th, 1922.

Family History: Unimportant.

Past History: Had whooping cough, measles, chicken-pox, and mumps during childhood. Menstruation began at 17 years of age, always accompanied by headaches and vertigo just before and after each period. Menstrual periods were always regular except during pregnancy, and lasted from five to seven days; were always free, with no clots and no pains, but followed by leucorrhea lasting from six to seven days.

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\* Read before the Eighth District Medical Society, Hartwell, Ga., Aug. 9, 1922.



Has had nine children, four boys and five girls. No twins. Had eclampsia during the third pregnancy at eight months. Child was delivered and lived. Patient soon recovered without any further trouble. All nine children were born breech presentation. The patient says she noticed: "With each pregnancy the enlargement was not in the center of the abdomen, as is the case with most pregnant women, but was either on one side or the other, and remained, for the most part, in that side throughout pregnancy. When the enlargements were on the right side the children were boys; and when the enlargements were on the left side they were girls."

(The above statement was made by the patient without any questions or prompting.)

**Present History:** Present illness began about eleven years ago, with pain in her back, and a heavy, weighty feeling low down in the pelvis. At times she could feel two knots or tumor-like masses low down in the pelvic region, and at this time the leucorrhea became more severe. She continued in this condition up to six years ago, which was about six or eight months after her last pregnancy. She then began to have uterine hemorrhages which were profuse and painful. They would come on every four to six weeks at first and last from a week to ten days, but during the past six months the hemorrhage would continue almost from one period to the next. At times the bleeding was scant, while at others it would be more profuse.

**Physical Examination:** Fairly well nourished woman weighing 130 pounds, with a worn expression, and somewhat anemic. Skin thick, but moist and pliable. Nose and throat normal. Heart normal in size, but has a distinct mitral murmur which radiates to the axilla and lower border of the left scapula. Pulse fair in quality and volume. Lungs negative. Abdomen showed a marked elevation of the abdominal wall in the lower right quadrant, and on palpation there could be felt a very firm rounded mass about the

size of a closed fist, extending off from a second mass low down in the pelvis, which was thought to be the uterus. There was no tenderness on pressure, the abdomen was otherwise negative.

**Genitals:** Perineum showed a second degree laceration. Vagina very lax. Cervix was hypertrophied and very much broader than normal, but there was no tenderness.

Temperature normal. Pulse 84. Respirations 18. Blood Pressure 130/90. Urine sp. gr. 1012. Reaction alkaline. No albumin or sugar. Blood hgb. 80%. Wassermann negative.

**Diagnosis:** Uterine fibroid.

**Operation Advised:** Hysterectomy.

**Operation May 17, 1922.**

**Gross Findings:** Double uterus, the right being somewhat larger than the left, one tube and ovary attached to the outer upper border of each uterus; both uteri contained a number of small interstitial fibroids, and one section showed a number of sub-mucous fibroids. All other organs of the pelvis and abdomen were normal.

Cervix, re-examined and inspected post-operative, also proved to be double, this accounts for the broadness mentioned above.

There are several points of interest that might be considered in this case.

First, it is a very rare case.

Second, the diagnosis in such cases is always difficult to make, because it is something out of the ordinary line of thought. The history and findings in this particular case were suggestive of fibroids, and the case was diagnosed as such.

Third, the development of both uteri was about the same, each one representing a normal uterus, although the right was a little larger than the left. The cervix was also double, making each uterus a separate and distinct organ.

Fourth, from the history of the case both uteri have been pregnant, and the development of these organs corresponds with the history, one being apparently as capable of becoming pregnant as the other.

Fifth, another interesting point, and

one that also bears out one of the theories as to the origin of the different sexes, was the statement that: "All on the right side were boys, and all on the left side were girls."

413-14 Holman Building.

### **PRESIDENT'S ADDRESS, ELEVENTH DISTRICT MEDICAL SOCIETY.**

Frank Bird, M. D.,  
Valdosta, Ga.

Gentlemen of the Eleventh District Medical Society and Our Distinguished Visitors:

I note with great pleasure that our secretary has prepared for you a feast of scientific papers equal to that of any state association. The class of papers and the standing of the authors of the same show an ever increasing interest in our profession. Meetings of this kind, bringing as it does the city, town and country doctors together, with their exchange of ideas and experiences, cannot but further enlighten us in all respects.

Realizing that the scientific side of this meeting is of such practical value to ourselves, as well as to suffering humanity, I will confine myself to drawing your attention to a few things that have lately come to my notice.

Each year I am more and more convinced that our present accommodations for the sick in the smaller cities and districts is entirely wrong, especially as regards the general public.

Formerly, as now, all places have been dependent upon bequests of wealthy friends, or upon the financial ability of certain physicians to establish hospitals. Only occasionally and in larger cities certain regulations are enacted by local law for the partial maintenance of the city hospitals.

As a result of this, many communities throughout our state are either without any hospital or equipped with a pay hospital alone, causing thereby untold unnecessary suffering to a vast number of unfortunates who are unable to go to the cities and unable to pay the local hospital

charges. I believe every man in this room can recall numerous instances of unnecessary suffering and deaths that in his opinion could have been prevented had the patient been able to afford hospital treatment. The value of human life is inestimable, each person in this world is dearly loved by someone, and the unnecessary loss of any life cannot be reckoned in dollars and cents. To my mind there are many arguments in favor of some system of establishing public hospitals accessible to communities. To my mind, our lawmakers have ignored this very important matter and given their attention to the alleviation of disease of cattle and swine because their eyes are open to the money value of these beasts and are as yet unable to recognize that the health of the community is the greatest asset.

I believe the blessing of God will rest on the heads of any man or men who will turn their influence to the enactment of legislation, local or general, whereby communities are forced by taxation to care for their sick of the poorer classes, and why should this not be so? We doctors gladly give our services to this class of patients without a murmur. But in the present day of enlightenment medical treatment in a hovel or poorer home is inadequate and saves no more lives than it loses.

This is a matter of common knowledge to us all. Let us therefore join our forces and see if we cannot present this matter so that those men and women in power will see the necessity of such a legislation and do something to meet the condition.

I desire to draw your attention to another matter. The subject of prevention of disease is now an established science within itself, but as all other sciences it has its limitation.

I want to give credit to our state for the enactment of the Ellis Health Law, which I think has been of undoubted benefit, and I hope in the near future to see a chair of public health in one of our local colleges.

I want to commend our public health officers for their work in the state directed



toward the prevention of disease. This work has been carried out with general satisfaction. There are some counties in the state that have not adopted the Ellis Health Law, but I hope they will soon.

I am sorry of the recent dissatisfaction that has arisen between the state board of health and the specialists in diseases of the eye, ear, nose and throat. A breach like this between these two bodies of men is to be deplored. The organization of clinics for operations in school buildings, court houses, etc., is not without some danger. If these operations are to be performed, I believe they should be given every advantage, and this does not obtain in school buildings and court houses.

I am not averse to the removal of tonsils and am mentioning this matter because I think the system adopted by the state board of health has some faults that can be rectified, if the state board of health as a head will act with and in conjunction with the State Medical Association as a head.

I will read you a report of the committee on health and public education of the State Medical Association, which was recently called together in regard to this matter.

Reading report.

I think it would be well for us to remember that the state board of health and the State Medical Association are Siamese twins, so to speak, each living a separate existence, but each dependent more or less on the other; therefore, let not one take from the other, but rather both work to each other's interest, thereby not only will both branches be benefited but the public as well.

Another matter that I wish to call your attention to is the matter of industrial insurance, and urge all who do any of this practice to familiarize themselves with the law as regards the insurance companies. By so doing you may find that this knowledge will be of value to them in the settlement of accounts.

I thank you very kindly for your attention.

## AN IMPROVED TREATMENT FOR RECENTLY EMBEDDED GUNPOWDER GRAINS IN THE SKIN.

Miller B. Hutchins, M. D.,  
Atlanta, Ga.

The grains of black gun powder are rather crystalline but easily crushed. Embedment is usually in the face and due either to close, partial explosion of loose powder or a direct shot from a toy pistol. The grains penetrate the epidermis and enter the layers of the corium, rarely to very great depth. A puncture may be very minute or there may occur lacerations, the latter being preferable in connection with treatment. Pulverized or "smut" portions are rather hopeless. If seen very soon after the accident, a few of the superficial grains may be wiped off, very gently, to avoid crushing. Should instructions first be requested by telephone, directions are given to oil area heavily, to prevent drying.

As soon as possible the surface is sponged with gasoline (which, as I understand, is the only "benzine" now available). This cleanses the skin and prepares it for treatment. No effort is made towards picking out the particles, though the little wounds may be picked open. Every point and area is now covered air tight with adhesive plaster, which acts in two or three ways. It prevents infection, which practically never occurs in any event, excludes the air, and by its serotactic action actually draws some of the grains out. Upon removal of the plaster next day its under surface is more or less "peppered" with gun powder. Dressings are daily, old plaster being removed with gasoline. The crop is less each day and there is such rapid healing that the punctures must be kept open. This is done by gently picking them with a fine point, and the adhesive dressings are continued.

The same method of treatment is applicable to small, coal cinders received in a fall on the face, and should be more successful, they being harder than gun powder grains.

Where the lesions have healed before the

patient is seen, and the later the worse. the greater part of the powder has become finely divided and intermingled with the cutaneous fibers. It is practically impossible to attain results in these cases save at the expense of scarring, and I have found no agent that would decolorize the stains. Such few small points or grains as may persist can be treated by picking open and the application of adhesive plaster. The carbonaceous deposits which cannot be removed give to the points or macules a bluish color, which partially fades in months or years. In some cases it may be a question as to choice of evils—leaving the stains or removing them—together with their embracing fibers—and, consequently, scarring.

Candler Building.

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#### REPORT OF COMMITTEE ON HEALTH AND PUBLIC EDUCATION.

At the last meeting of the House of Delegates, held in Columbus, the matter of tonsils and adenoids clinics as conducted by the State Board of Health, was referred to our committee on health and public education for the purpose of investigation and solution.

From a letter since received from the commissioner of health, Dr. T. F. Abercrombie, it was learned that his office has definitely decided not to organize any more clinics until the Medical Association of Georgia and the State Board of Health have agreed on some plans satisfactory to all.

The committee finds that much educational work done in the state of Georgia in regard to the removal of tonsils and adenoids is now beginning to bear fruit and

the request for such removals are on the increase. To encourage this wave of enthusiasm would be in contra-distinction to the most recent teachings of the great medical center of this country where conservatism of the removal of tonsils and adenoids is advocated.

The committee recommends for the solution of the problem the following:

1. That each county society assume responsibility for charity cases. That they appoint the physicians interested in the removal of tonsils and adenoids as a committee, who in turn assign one or more members from among their number or from some adjacent county to do this work free of charge to strictly charity cases.

As the greatest number of such cases are school children, the committee suggests that the officers of the county society include the county health officer, the principals of the schools or the county superintendent and two ladies of the community on a committee whose function is to find these charity cases, but the doctors selected determine the need of the operation.

2. In such places where there are no organized county medical societies, the counselor of that district shall appoint a committee of physicians, who must be members of the Medical Association of Georgia, in or adjacent to the locality where children need this operation, to act as outlined in paragraph 1.

Respectfully submitted,

Theodore Toepel, Chairman.

F. F. Floyd.

W. A. Mulherin.

Atlanta, Ga., June 6, 1922.

Adopted by the Council, Medical Association of Georgia, June 6, 1922.

V. O. Harvard, Chairman.

A. H. Bunce, Secretary.



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Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****PREPARING FOR THE PRACTICE OF MEDICINE.**

Stanwood Cobb quotes a famous French critic as saying, "In things of the mind the American student is too docile. His critical sense and his desire for originality are blunted. It is a curious thing that these young men, capable of throwing themselves madly into battle, these born adventurers who find fierce delight in surmounting real obstacles, are almost pusillanimous when they have to engage in a struggle with ideas. That comes without doubt from their being trained to learn rather than to think."

While Cobb uses the above as a text in his criticism of preparatory schools it applies even more forcibly to medical colleges. Great strides have been made in the improvement of medical teaching and in the quality of the students. The elimination of the commercial medical college

with its inadequate laboratory and clinical facilities formed the first milestone in the general improvement of medical education. The preliminary preparation and the limitation of the size of classes to the numbers which could be accommodated in the laboratories and clinics proved a distinct advancement. These things might be said to have formed a new epoch in medical teaching.

Much progress has been made but the curriculum of these schools is greatly overcrowded. The student is "put through the mill" from early until late with no time to digest the mass of facts and near facts with which he is deluged. The present crowded course of study not only fails to arouse and stimulate true ratiocination but lacks interest and dulls enthusiasm. As much interest could be aroused and equally as much benefit obtained from a study of the Sea Kings of Crete or a course on the Social Life of Scandinavia in the Viking Age as from many of the things required of the present day medical student.

He who would treat the sick spends at least six of the most valuable years of his life in College and usually two more in an internship. Yet do these eight years of preparation qualify him properly to practice medicine? Often his reasoning faculties are so jammed with a host of routine procedures, tests and examinations that he fails to detect the obvious. Increasing clinical facilities and the attempt to train practitioners of medicine rather than specialists form the only faint glow on the horizon.

**CO-OPERATION IN PUBLIC HEALTH ACTIVITIES.**

The report of the Trachoma Clinic\* conducted at Pelham, Georgia, illustrates most forcibly the value of co-operation in public health activities. A preliminary survey by the U. S. Public Health service made at the request of Dr. Abercrombie, our commissioner of health, demonstrated the presence of many cases of true trachoma. In many instances all the mem-

bers of a family were suffering from this dread disease. Partial and even total blindness were not uncommon.

A plan was outlined for the conduct of a hospital and clinic to examine and treat those afflicted. The Public Health Service furnished a physician and two nurses trained in trachoma work, the county commissioners provided the necessary funds and the local profession gave its united support. The hospital could accommodate only twenty-five patients but in the four and one-half months of its existence it cared for over three hundred patients. Nearly two thousand school children were examined and the clinic was crowded from the day of its opening. The good accomplished will last for generations. The cost to the county was small—less than two thousand dollars. The average cost of less than thirteen cents per meal gives an interesting side light on hospital management.

Without the enthusiastic co-operation of all concerned little could have been done but as it is Mitchell County is practically rid of trachoma. She now has a full time health officer and her citizens are aroused as never before to the importance of preventive medicine.

\* Report of Trachoma Clinic Conducted at Pelham, Mitchell County, Georgia: Journal, Medical Association of Georgia, V. XI, No. 10, pp. 398-401, Oct. 1922.

### **SUGGESTIONS FROM THE COMMITTEE ON HEALTH AND PUBLIC HEALTH EDUCATION.**

The Medical Association of Georgia, the Georgia Dental Association, the Georgia Pediatric Society, the Federation of Women's Clubs, the Parent-Teachers' Association, the Georgia Educational Association and the Georgia Elks have sent in the names of their representatives in the counties in which their state association functions. For the purpose of clarity and with the object in view to give the members who are representatives of their parent bodies and the state associations which have manifested interest in this co-operative movement an idea of its possibilities and to present its working plan this outline is published.

Our state board has practically stood alone in the educational propaganda along advanced preventive medical measures. We doctors must carry a part of this responsibility and co-operate in every possible way, especially by being ready to deliver lectures to the lay associations at any time we are called upon to do so. In this way our well guarded ethics and principles will reach the public by our appointed representatives and many misconceptions and misrepresentations will be avoided and the people of questionable scientific training could then not misdirect the laity into wrong channels of thinking regarding health problems.

Your Committee on Health and Public Education recognized that medicine of today is divided into two main groups, that of prevention and that of cure. To the State Board of Health falls the greater burden of preventing the spread of disease by formulating and having laws enacted with power to enforce to rid the state of such possible dangers, but we feel that the enforcement of all health laws require the fullest co-operation of every physician in the state. With this end in view we appeal to the loyalty and integrity of every member to lend a hand by obeying the laws himself and then by making them known to his patients, and by lecturing to public gatherings of laymen.

The public is eager for instruction; let us give it to them properly compounded. As to curative medicine, your committee feels that this important field belongs solely to the practicing physician, and by the sanctity of our profession and, if necessary, by state power, we should protect these rights. As every member of the state association must be a member of some county association, we feel that the county medical societies are the proper bodies to guard against any encroachment upon curative medicine.

At one of our meetings the committee recognized our shortcomings and decided to institute measures to overcome our lethargy and to be in closer touch with the public. An invitation was extended to a



number of lay associations to meet our committee for the purpose of exchanging opinions as to best methods to pursue to bring about a better co-operative spirit between the professional medical men and the laymen of the state. This meeting was held in Columbus and a report of it was published in our state Journal. This meeting was a success in the way of attendance, enthusiasm and in the adoption of a clear-cut outline by which the work of the doctor for the layman can best be accomplished. At a meeting in Macon an organization was perfected, composed of state associations. A working plan was adopted to organize the state with the counties as the basic branches. Each state association is to have one delegate to serve for a longer term than one year. These delegates are to secure the best suited representatives from each county in which their association functions and send this list to the Secretary of the State Council of Health and Public Health Education. The secretary will compile the various lists and forward the names of all appointees to one of the appointed who in turn will invite all the appointed delegates from his county to a meeting where a county health committee is organized in the usual way by electing officers, appointing committees and mapping out a plan of work best suited to its respective county. •

The county health committee should keep in mind the main object of its mission, namely, the improvement of all health conditions. A live committee can become a real power and benefactor to its county. As education is the fundamental factor in all health work our committee recommends that public lectures be arranged at schools, churches, courthouses and other available places. The topics of these lectures with an outline of propaganda work will be furnished the county health councils upon request by the executive committee of the State Council of Health and Public Health Education.

When the committee feels that a sufficient and effective amount of educational work has been done, the more concrete

and personal work may be undertaken. This consists in getting the citizens of the county financially interested in maintaining a health centre, which in the beginning need consist of one room only, properly furnished, wherein clinics can be held for the benefit of the poor residing in the county. As an outline for the program of a clinic the following may serve as a suggestion: prenatal care, nutrition clinic, communicable diseases, eye, ear, nose and throat, dental clinic, tuberculosis, cancer, deformities, etc. The doctors and dentists who are members of the parent bodies would divide the work, so that it would not be a hardship to any one. The county health council assumes the responsibility of financing the centre and of making the sociological investigation, so that only the needy and deserving patients are treated at this place.

The Ellis Health Law of our state is as good a law as any in the United States and it should be effective in every county in Georgia. The county health council would be doing laudable work by interesting the citizens of the county in this law. By having it recommended by two successive grand juries in the county the law would become effective. A regular Ellis health law medical officer would be functioning in the county wherein it is adopted as outlined before. This health officer is of inestimable value to a county in looking after sanitation and preventing epidemics and becomes in a sense the executive officer of the county health council.

The committee hopes that the foregoing synopsis of the possibilities of a well organized county health council in conjunction with a strong county medical society and the co-operation of the dentists will prove to be of value in bringing about a better health condition in every county wherein united effort is made. It can result in untold amount of good to the professional men and to the public at large.

Respectfully,

Committee on Health and Public Health Education.

Theo. Toepel, M. D. Chairman.

**WILLIAM STEWART HALSTED.**

"There is a prince and a great man fallen in Israel," in surgery, when Dr. W. S. Halsted died September 7th following an operation for gall stones. Dr. Halsted was born in New York in 1852. He received his A. B. degree from Yale in 1874 and his M. D. from College of Physicians and Surgeons, Columbia University, in 1877. He then studied in Vienna, Leipzig and Wurzburg. He was made an honorary fellow of the Royal Society of Surgeons of England in 1900 and Yale conferred the D. Sc. degree and Columbia LL. D. in 1904. The University of Edinburgh gave the LL. D. degree in 1905.

He was professor of surgery in the Johns Hopkins University from the opening of the medical school until his death. He originated the Halsted operation for cancer of the breast and a number of other operations, but one of his greatest boons was rubber gloves.

It was the writer's great privilege to have been thrown with Dr. Halsted in the early nineties when they were organizing Johns Hopkins Medical School and he has never witnessed a more wonderful combination of ability, technical skill and courtly manners. His courteous consideration of patients, students, nurses and all with whom he came in contact was the admiration of every visitor. This thoughtfulness of others led to one of his greatest gifts to surgery, rubber gloves.

In those days to sterilize the hands there was, first, the long scrub with green soap and hot water; second, immersion in solution of permanganate potash; third, immersion in oxalic acid until all permanganate stain was removed. This was washed off in sterile water and then immersed in solution bichloride mercury. Of course, this was very trying on the skin. One of the nurses had eczema on the hands and could not stand this method of steril-

izing, so she applied to Dr. Halsted for help and he had a pair of rubber gloves made to protect her. They worked so well and were so easily sterilized that they were adopted by the entire surgical staff.

Dr. Halsted was one of the "Big Four" of the medical school and will be greatly missed.

H. R. S., Class '91.

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**MEETING OF THE SEVENTH DISTRICT MEDICAL SOCIETY.**

The Seventh District Medical Society met in regular semi-annual session in Rome, Ga., September 27, 1922. J. Turner McCall, president, with M. M. McCord as secretary.

The meeting was called to order by the president, the invocation led by Rev. J. E. Sammons.

Welcome address in behalf of the city and local profession was delivered by Dr. Geo. B. Smith. The response was delivered in most eloquent style by our vice-president, Dr. E. H. Richardson, of Cedartown.

The minutes of the LaFayette meeting were read and adopted.

Dr. E. V. Elmore, chairman of the committee on public health and legislation, called upon Dr. M. A. Fort, of the State Board of Health, for a report covering activities in the Seventh District. The report made by Dr. Fort showed some very interesting facts in the district.

Dr. M. M. McCord, councillor for the Seventh District, reported that he had begun a campaign to every local society in the district in an effort to stimulate more interest in the county societies and to increase the membership in the Medical Association of Georgia.

Scientific papers were taken up as follows:

1. A Contract Between the Old and New Methods of Practice—J. W. Clements, M. D., Subligna.
2. The Management and Treatment of Osteo-Myelitis—Maxwell Harbin, M. D., Rome. Discussed by Drs. Starr, Wood, Lewis and Richardson.



3. A Discussion of the Endocrines—W. L. Funkhouser, M. D., Atlanta. Discussed by Drs. Turner and McCord.

4. Nasal Accessory Sinuses—Geo. B. Smith, M. D., Rome. Discussed by Dr. Ross P. Cox, Rome.

5. A Case Report—Trammell Starr, M. D., Dalton.

6. Suggestions Concerning Deafness in Children—Ross P. Cox, M. D., Rome.

7. The Use of the Cystoscope in Diagnosis and Treatment Genito-Urinary Diseases—J. L. Garrard, M. D., Rome. Discussed by Dr. Ross P. Cox.

A very interesting address was delivered on tuberculosis by M. Stross, from the U. S. Public Health Service; also a most instructive and interesting address on Malaria, by Dr. M. A. Fort, of the Georgia State Board of Health.

A resolution was passed authorizing the secretary to communicate with our congressman and senator endorsing the proposed hospital in this district by the Federal Government for the treatment of drug addicts.

Dr. W. G. England extended a cordial invitation to the society to meet in Cedartown next April as the guests of the Polk County Medical Society. The invitation was seconded by Dr. E. H. Richardson in a few well chosen words, which made the entire society delighted to accept the invitation, which they did.

A resolution was passed requesting the secretary to write a letter of sympathy to Dr. Howard Felton, who was operated on at Harbin Hospital on the morning of the day the society met in Rome.

There being no further business, the meeting adjourned.

M. M. McCORD, M. D.,  
Secretary.

#### DOUGLAS COUNTY MEDICAL SOCIETY.

Thursday afternoon, October 31st, a very interesting meeting of medical men of Douglas County was held in the office of Dr. D. Hawsworth in which there were present, besides the doctors of Douglas

County, Drs. W. C. Lyle, Councillor of Fifth District; W. A. Selman, Vice-Councillor Fifth District; E. C. Thrash, ex-President of State Medical Association, and M. C. Pruitt, representing State Medical Journal, all of Atlanta, Ga.

After some very interesting talks from Drs. Lyle, Selman, Thrash and Pruitt on the advantages of the medical profession being thoroughly organized and more fully understanding each other, the Douglas County Medical Society was organized. The following officers were elected:

President—Dr. D. Hawsworth.

Vice-President—Dr. R. E. Hamilton.

Secretary-Treasurer—Dr. J. M. Boyd.

Board of Censors—Drs. R. H. Pool, W. H. Reid and R. E. Hamilton.

Delegate—Dr. D. Hawsworth; alternate, Dr. W. H. Reid.

There being no further business the meeting adjourned.

(Signed) J. M. BOYD, M. D.,

#### ATLANTA NEUROLOGICAL SOCIETY.

At the regular meeting of the Atlanta Neurological Society, September 29, 1922, a paper was read by Dr. J. Cheston King entitled "Some Injuries of the Back From a Neurological Viewpoint." An abstract of Dr. King's paper is as follows: Back injuries received by employees of various corporations or others injured by corporations present a legal as well as a medical aspect. The Workmen's Compensation Act cares for the former, whereas the latter is a more difficult problem in that the usual symptom complained of is pain with or without objective evidence of injury. It is important to determine if possible the consequences, the presence of neurological disturbances, and the degree of disability in such cases. The pain may be due to traumatic neurosis, definite organic lesion, or to malingering. A true lumbago can usually be easily diagnosed. A differentiation between a pain due to injury and one which is the result of disease both of the vertebral column and other organs is all essential. When due to injury a tearing of muscle

fibers or a sprain of joint ligaments may be present. Such conditions usually clear up in time after the proper treatment has been instituted. The X-Ray will usually disclose bone changes where these are due to injury or inflammation. A thorough method of examining a so-called painful back is absolutely essential in properly estimating the individual case. The true malingerer always overdoes his part and presents a picture of such a bizarre nature as to fool only the purest novice in medical matters. After ruling out malingerer, the majority of cases complaining of pain in the back following injury are the victims of functional rather than organic disease.

Dr. Gaines: This interesting paper is open for discussion.

Dr. Dowman: Dr. King has opened up a problem that everyone of us has been up against; that is, in trying to verify by physical examination a purely subjective symptom. I believe that a careful, painstaking examination, including X-Ray examinations of the spine and lumbar puncture, in addition to careful neurological examination, particularly the determination of areas of hyperesthesia where there is suspected posterior root irritation, will usually satisfy the examiner as to whether the pain is real or imaginary.

I recently saw a patient at the Davis-Fischer Sanitarium who for two years had had excruciating pain in the lower back region. On account of this pain Dr. Davis had removed both tubes, which were in a state of chronic inflammation, thinking that the pelvic condition was possibly the cause of her symptoms. In spite of this operation the pain persisted. This pain would come on in definite paroxysms located in the back, to the right of the spine, lumbar region. On examination there was a definite area of hyperesthesia in the area supplied by the eleventh and twelfth dorsal segments, the zone of hyperesthesia extending on the right side to the anterior midline, and on the left side to within a few centimeters of the anterior midline. This was checked up repeatedly and was found

to be constant. If the hand was rubbed over the involved area, the patient complained of a sensation as though one were using sandpaper. X-Ray examination of the spine was negative. Here was a case of pain in the back that I feel quite sure is an illustration of a type that could not be explained on the theory of malingerer or neuresthenia. It is true that this patient was very neurotic, which would be but natural under the circumstances. I made a diagnosis of radiculitis, that is, an inflammation of the posterior roots or posterior root ganglia, probably toxic in origin. The question came up as to what was the cause of her toxemia. Dr. Hoke saw this patient and worked out her intestinal tract. He concluded that the intestines were not responsible for her trouble. The teeth were examined and seemed to be normal. The tonsils did not look diseased. (Dr. Calhoun saw her). The remaining source of possible toxemia was an old metritis. After much persuasion on my part, Dr. Calhoun removed her tonsils. I have not heard whether she is improved or not. I mention this case to illustrate that there are cases of definite pain in the back, which are due to involvement of the posterior roots or ganglia. Such cases may also have Herpes Zoster in addition to hyperesthesia in the distribution of the involved nerves. In regard to this particular case, I feel that, after she has had all of the possible sources of toxemia cleared up, if the pain still persists I will be justified in advising posterior root sections, an operation which should give her permanent relief.

In regard to the type of cases which Dr. King has mentioned—the railroad cases—I always have “my fingers crossed” in regard to these patients having actual pain. If they have actual pain, I believe the cause can be demonstrated by a painstaking examination. It is very hard to get into the court records testimony concerning purely subjective symptoms. I think Dr. King’s paper is an excellent one, and brings up a very important subject. The paper should be published with our trans-



actions, because it may be of definite value to physicians throughout the state, as such problems come up in every community.

Dr. Brawner: Dr. King, in his paper, has covered in a very complete way the differential diagnostic points in injuries of the back. There are two classes of these patients. In one class the patient expects to receive some financial compensation for the injury that he has received. It is especially in this class of cases that we have to be on our guard in reference to the symptoms that the patients complain of. I am sorry to say that in my experience the majority of these cases who have filed damage suits, and who at the same time complain of severe pain in the back due to the injury, get well very promptly as soon as the damage suit is settled. In the other class, we have to deal with patients who receive injuries of the back, and who have no ground on which to base a claim for financial compensation. These patients have no motive to misrepresent their symptoms. No doubt there are injuries of the back in which ligaments are torn, and probably cases where a nerve is contused which gives a certain amount of pain.

Dr. Calhoun: While listening to Dr. King's very interesting paper, I tried to draw some analogies between injuries to the spine and certain ophthalmic entities which may develop after trauma. I refer to syphilis or tuberculosis, or even malignant intraocular tumors, which may exist in a latent or quiescent state and by a trauma to the globe the pathological process is excited into a full bloom condition. A most recent article upon the subject, which has much to do with the Workman's Compensation Act, is by an Englishman of large clinical experience, who upon referring to his old case records of interstitial keratitis, found that the history of trauma had proceeded the inflammatory symptoms in a very large percentage of his patients. In applying this to railroad spine, might not this patient on the verge of a lumbago or neuritis receive an injury to

the back and develop this pain as a result of the injury? In justice to the patient, this should be considered.

Dr. Gaines: The paper of Dr. King's shows very careful preparation and should provoke thought along a number of lines. Backache is one of the most common complaints with which patients come to the doctor. The surgeon is apt to see an opportunity for surgery when backache is described. The gynecologist is apt to have visions of curettage and suspension of the uterus in spite of efforts on his part to put such unpleasant thoughts behind him. The internist thinks of toxic causes, the orthopedist feels sure that it is of sacroiliac origin and that casts and appropriate exercises must certainly be prescribed. The neurologist is instantly alive to the possibility of root pain, of neuritis, or some interesting and important nerve lesion responsible for this pain.

It is necessary, therefore, to preserve an impartial attitude and to attempt to diagnose without any bias from the line of work in which one is particularly interested. It is very certain that the only safe mode of procedure is to obtain a very careful and thorough history, no matter whether on the face of it it seems necessary or not. It is then necessary to obtain a complete general status of the patient. In order to do this it is sometimes imperative to conduct a very thorough and painstaking examination, leaving nothing undone. I can recall one of my early mistakes in diagnosis was in telling a patient who had a severe backache and high grade of indicanuria that his backache was of toxic origin. I discovered later that he was suffering from aneurism of the descending aorta. This mistake could have been avoided had a thorough examination been made at the time. One should therefore not be satisfied with a possible explanation of backache or of any other symptoms, but should demand every possible explanation, as there may be several causes operating to cause the same symptom or symptoms.

The medicolegal aspect of this question is quite important, and it is necessary for

one to be constantly on the lookout for possible malingerers. Even the elect may sometimes be deceived by clever imposters. The safest way to avoid such deception and humiliation is by making very thorough examinations. Some of the devices which Dr. King has mentioned in his paper are interesting and valuable.

Dr. King (in closing): In reference to Dr. Dowman's statement in regard to the X-Ray, there should always be an X-Ray, but this will not fulfill all of the field from a diagnostic standpoint. You can tell nothing about the muscles or about the bones outside of the vertebrae being a little rough, but from muscles themselves you can not tell anything. One great mistake this is made in regard to X-Ray is for any man to present an X-Ray to a jury unless he is an expert in this line and can explain same clearly. It is a specialty within itself.

### NEWS ITEMS.

#### Marriages.

Dr. Murdock S. Equen to Miss Anne Cornelia Hart, on October 25, 1922, All Saints Episcopal Church, Atlanta, Ga.

Dr. Forrest M. Barfield to Miss Dorothy Virginia Orr on November 2, 1922, Atlanta, Ga.

The annual barbecue given by Dr. E. C. Thrash at his home, Boulder Crest, Atlanta, October 6th, was attended by more than 300 doctors. The following unique invitation was sent to the member of the Fulton County Medical Society:

"You Should Be A Rested Doctor. You Have Worked Your Patients Overtime. You Need More Punch. Pep Yourself Up With Pitted Pig and Orchidize With Empyreumatic Goat Lymph at One-Thirty, Saturday, October Fourteenth, Nineteen Twenty-Two, at Boulder Crest."

Every promise in this announcement was carried out in the usual "E. C. Thrash Style." No comment is necessary. If you have ever attended one, you will never miss another.

The Doctors' Exchange and Nurses' Registry announce the removal of their office from 89 Clifton Ave. to 358 Ponce de Leon, near North Boulevard. The telephone numbers, Ivy 2723-24-25, will remain the same until the new telephone directory is delivered, after which it will be Hemlock 6301-6302.

### ANNOUNCEMENTS.

Dr. Lewis D. Hoppe announces the opening of his offices, 79 Forrest Avenue, Atlanta, Ga. Practice limited to diseases of infants and children.

Dr. L. Sage Harding announces removal of his offices to 349 Courtland St., Atlanta, Ga.

Dr. Jos. Hiram Kite announces opening of offices at No. 20 Ponce de Leon Ave., Atlanta, Ga. Practice limited to surgery.

FOR SALE—Georgia. \$7,000.00 cash general practice and business property. Good hospital, roads, fees, schools. County seat, modern. Ten-mile radius, 25,000 people. \$7,000.00 cash necessary, balance long time. Send professional, moral, financial references. Specializing. Address, Opportunity, care Secretary, Georgia Medical Assn., Atlanta, Ga.

### FOR RENT.

My Sanitorium will be for rent January 1, 1923. This building has 25 to 30 rooms, partly furnished. Can be made a modern and up-to-date hospital. Will make an interesting proposition to the right party.

DR. L. G. Hardman, Commerce, Ga.

### DEATHS.

Thomas Jefferson Johns, Tallapoosa, Ga., graduate University of Alabama, 1889; vice-president Haralson County Medical Society; member Georgia State Medical Association; member Southern Medical Association; member American Medical Association, died suddenly at his home, October 14, 1922. Aged 69.





## Can You Refuse?

EVERYWHERE you see the ravages of Consumption. There were 1,000,000 cases and 100,000 deaths from this scourge last year. But if all that see these words will help,

### *It can be stamped out*

Buy the Tuberculosis Christmas Seals where you see them sold. (A picture of one is below.) The revenue from these sales is devoted to a great organized campaign against Tuberculosis. This campaign gives the service of doctors and nurses to millions of the stricken. It organizes local associations. It carries on educational work in schools and offices and factories.

You cannot help in a nobler work. Join it. Buy the seals.

**Stamp Out Tuberculosis  
with Christmas Seals**



The National, State, and Local Tuberculosis Associations of the United States

## BOOK REVIEWS.

**Management of the Sick Infant**, by Langley Porter, B. S., M. D., M. R. C. S. (Eng.), L. R. C. P. (Lond.). Professor of Clinical Pediatrics, University of California Medical School; Visiting Physician, San Francisco Children's Hospital; Consulting Pediatrician, Babies' Hospital, Oakland; Consulting Pediatrician, Mary's Help Hospital, San Francisco and William E. Carter, M. D., Assistant in Pediatrics and Chief of Out Patient Department, University of California Medical School; Attending Physician, San Francisco Hospital, San Francisco. Cloth. Price, \$7.50; 654 pp., with 54 illustrations. St. Louis: C. V. Mosby Company, 1922.

Drs. Porter and Carter have prepared a very worthy contribution, distinct in many respects, in the management of the sick infant. It is said to be the only "text book in the English language which deals exclusively with the peculiarities of disease as it occurs in infants." The manner in which certain subjects are handled, such as vomiting, diarrhea, constipation, nutrition, etc., is most unique and instructive. Of particular mention is Part III of the book on "Methods," such as intravenous injections, blood transfusions, lumbar puncture, gastric lavage and gavage, in which the authors have described in detail the steps of such methods, richly interspersed with good photographs, stating that "the manner of doing any given thing naturally varies with the predilection of the doer" but that "the schemes of procedure as given here are those that have stood the tests." It is a text book worthy of the library of any nurse, medical student or practitioner.

WM. W. ANDERSON.

**Symptoms of Visceral Disease**, by Francis Marion Pottenger. Second edition. C. V. Mosby Co., St. Louis, 1922.

The second edition of Dr. Pottenger's monograph on neurology at the physico-

chemical level has just appeared. The author has amplified and clarified his previous material as presented in the first edition.

Visceral neurology as a science in the sense of systematized knowledge is a recent attempt. The anatomists have for many years been making contributions to knowledge of the structure of the vegetative nervous system. More recently the physiologists have contributed enormously in describing the functions of vegetative structure. Now it remains for alert clinicians, with vision, to correlate such knowledge with clinical experience and to describe the role played by the vegetative nervous system in the production of symptoms of visceral disease.

Dr. Pottenger in his work reflects the modern trend of medical investigation which has for its ideal the physiological as well as the old anatomic conception. Such emancipation of medical thought has been particularly exemplified by the work of Mackenzie, Eppinger, Hess, Hewlett and others.

The work indicates a philosophical mind on the part of the author and an endeavor to free the study of clinical medicine from old pernicious habits of thought. Such efforts are well expressed in the paragraphs on the necessity of a viewpoint in clinical medicine, inaccuracy of clinical observations, modern teaching at fault and too often unappreciated relation of psychic activity to body control. The author, further, emphasizes the needed conception that most symptoms are due to altered nerve and endocrine activity and are expressions of disturbances of normal reflexes.

The real object of the book is summed up in his statement: "The rational basis for this study of disease, whether it be for the purpose of diagnosis, prognosis or therapy, demands an understanding above all else of the physiologic control of the body as exerted through the two vegetative systems—the vegetative nervous system and endocrine glands . . . the purpose is particularly to show the relation-



**THE CLINIC**  
**MACON, GEORGIA**

DR. W. C. PUMPELLY  
 DR. G. Y. MASSENBURG  
 DR. HARRY MOSES  
 DR. T. D. HENDERSON  
 DR. C. D. CLEGHORN  
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**-THE CLINIC, MACON, GA.**

ship of the visceral nerves to the symptoms of disease, and to show how symptoms are produced and what symptoms may be expected with a given disease."

The subject is presented under three parts. First, the relationship between the vegetative nervous system and the symptoms of visceral disease. Second, innervation of important viscera with a clinical study of the more important viscerogenic reflexes. Third, the vegetative nervous system which is a study of the most recent conception of structure and function.

There are perhaps a few minor criticisms. The statement on page 32 that "Man is a dual being, physical and psychical," is rather in conflict with the individualistic view and the conception of man as an organism existing as such at different levels and adapted to his environment by such mechanisms as the author describes. It would add to the clarity of the book if

some of the sentences were shorter and less involved. A single sentence of twelve lines or more makes reading more difficult than it should be.

There is an excellent table of contents and index and the copious illustrations and plates are helpful to an understanding of the text.

On the whole the book is thoughtful, rather unusual in its mode of presentation, and develops a subject which is still a closed book to the rank and file of practitioners.

LEWIS M. GAINES.

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**BOOKS RECEIVED.**

Animal Parasites and Human Diseases, by A. C. Chandler, M. S., P. H. D., instructor in Biology Rice Institute. Second revised edition, 254 clear reproduced figures, 577 pages, cloth. \$4.50 postpaid. Publishers, Jno. Wiley & Sons, New York.

# THE JOURNAL

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No. XII

### THE PRESENT STATUS OF SURGERY AND HOSPITALS IN SOUTH GEORGIA.\*

Arthur D. Little, M. D., F. A. C. S.,  
Thomasville, Ga.

In a recent paper, I reviewed the progress of surgery in South Georgia, and stated, among other things, the fact that in 1892 there was only a fifteen-bed hospital in the territory bounded by Macon on the north, Jacksonville on the south, Savannah on the east, and Montgomery on the west. There are now at least 1,500 beds in that same territory, but before analyzing the hospital situation I wish to make a few remarks about surgery.

Twenty years ago a very small per cent of the doctors in South Georgia were attempting any surgery; today there are a very few who are not attempting more or less surgery. Therefore, I think I am correct in making the statement that we have a variety of surgeons, good, bad and indifferent. Now, just what has brought about this situation? I think the surgical fee and the community advertising a man received for a successful operation was one of the causes; another was the opportunity the many city hospitals offered, for a price, to teach a doctor enough to subdue his timidity in undertaking a major operation. The fact that he had a well-established clientele and a medical diploma were sufficient legal and commercial rights for him to go the limit.

Now, for the purpose of discussion, let me ask this question: Are there not too many good internists trying to do surgery, and too many good surgeons trying to practice medicine, and has not the desire to do surgery caused a sad neglect of internal medicine?

In a paper I wrote on Group Medicine, I made the statement, and I now repeat it, "Few men are gifted with sufficient intellect to keep abreast with the progress of every branch of the medical science," and I believe that few medical men are keeping up with the progress of internal medicine, which I assure you has made rapid and magnificent strides during the past five years.

What do you see when you go to the teaching centers? You see the operating theaters crowded with eager men—trying to learn some new technique, while the departments of internal medicine are largely occupied by senior and junior medical students, and they are there by compulsion. It is my honest opinion that all the magnificent and elaborate physiological laboratories of our post-graduate schools would have to close if it were not for the undergraduate body which has to attend them.

It looks to me that internal medicine in South Georgia is rapidly getting to the status that surgery in South Georgia occupied a few years ago, and that is, every time we get a case a little out of the ordinary we have to yell to Atlanta for help.

Any one can criticize, but we need to take council and suggest a remedy.

If every doctor in South Georgia, excepting those who specialize, would take stock of himself, he would find that he has a definite inclination toward some particular branch of medicine, or a particular allied group of the medical science, or he would find that certain conditions would suggest that success would follow a particular line. Then, when he has solved this fundamental, let him concentrate on the branch selected and become proficient in that branch.

I have seemingly abandoned my subject,

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but am coming back to surgery, handling this branch along with the hospitals.

Five years ago the American College of Surgeons decided to attempt the standardization of the hospitals on the North American continent, and are now busily engaged in that work. They have formulated what they term a minimum standard, and it seems elementary enough. They ask that complete records be filed in every case, these records consisting of a complete family and clinical history, a complete physical examination, an operative sheet, a pre-operative and a post-operative diagnosis, a progress sheet, a discharge note, and when possible a follow-up record, have organized staffs, with regular staff meetings. In addition, they require routine laboratory work, and prefer that routine tissue work be done, and X-ray work be done when indicated.

This all seems simple and reasonable, yet I don't know of a single hospital in South Georgia that has so far fulfilled these requirements, and only a few in the entire state.

We men who are doing surgery have not been filing complete records, and for that reason we have not been doing good surgery. If we get a careful history, and make a thorough physical examination, we will operate on fewer cases, but will have a greater per cent of cures. Often we will find a heart lesion or lung lesion that is much more important to deal with than the surgical condition presented.

I recall a case where I found a perineal laceration, and a tumor mass in the right pelvis. I had previously found in the beginning of my examination a number of bad teeth, a sick heart, and a history of asthmatic attacks, and although there was very definite need of and indication for surgical interference, yet her mouth and chest condition was much more important. I advised this patient to see an internist, which she did, with the result that she returned to me in three months a changed individual; her teeth had been put in good condition, her heart was greatly improved,

her asthma had disappeared, and she had gained eight pounds, and was therefore in much better condition for operation. I did operate, and one year has passed and she is in perfect health.

Now, this is what would have happened if I had operated in the beginning: I would have subjected her to a hazardous operation; she would have had a stormy recovery; she would have left the hospital still sick and discouraged; all her friends and neighbors would know that the operation had not cured her, and surgery would have received a black eye—to say nothing of what would have happened to the surgeon's reputation.

I recall another case, where I was asked by a physician-surgeon to operate for an acute cholecystitis. I did so, but the original doctor retained the case, and I lost track of her for a year. She came in to see me one year after leaving the hospital, and stated she had been sick the entire time and was getting worse. She was unable to digest her food; she had loose bowels, stools contained mucus and undigested food; she was 15 pounds lighter and could not sleep. I referred her to a competent internist, who made a series of X-rays of stomach and intestines, an examination of her stools, and examined her stomach contents after a test meal. Her digestion improved at once; she was able to leave off the opiate that had been given for bowel control; her stools were soon normal; sleep returned, also her normal weight. In other words, she is well and, as Stewart Roberts would say, "I learned about internal medicine from her." She is a firm believer in surgeons, and has equal confidence in physicians, but thinks very little of the combined physician and surgeon.

My plea to this body of medical representatives is specialization, and the adoption of the minimum standard for our hospitals, contending that we owe this to the laity who look to us to guide them along the path of health.

I contend that the man who is doing

everything in medicine is working himself to death, doing nothing well, making only a modest living, and is more responsible for the presence of chiropractors than any one else.

### LORD LISTER AND HIS PRICELESS GIFT TO MAN.\*

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A man who gives something worth while to humanity should receive a rich reward, yet few men live to receive world recognition and thanks for their services to mankind, and many die unacclaimed and without knowledge of the far-reaching importance of their discoveries. Lord Lister lived to receive the highest honors his English king and countrymen could bestow and was royally received by countries of the European continent. To him the world owes an eternal debt of gratitude for discoveries which helped to blot out a large part of human suffering and to save countless lives by the prevention of wound infection.

Pasteur's discoveries placed Lister's wound treatment on a rational basis. We should never forget those who helped to make great attainments possible, so we must thank Pasteur for the foundation of our knowledge of the cause and prevention of wound suppuration. The older men of our profession remember the first appearance of a part of Lister's later work. When we recall the fact that he died in 1912 we realize that the technique of the modern aseptic operation has been in existence a very short time.

In 1827 Lister was born of Quaker parents in Upton Lane, West Ham, London. His father made the first achromatic English microscope and was considered to be a very gifted man. Lister received an admirable scientific and classical education, and acquired a speaking knowledge of French and German. He was more thorough than brilliant. He graduated from the University of London (then a very

young and thriving university) in 1847, receiving his Bachelor of Arts degree. He received his medical training at the University College Hospital and Medical School, from which he graduated in 1852. He had the good fortune to be under Sharpey, the noted physiologist of that day, and while he was house surgeon under John Eric Erichsen, the Anglo-Dane, he became acquainted with the appalling forms of blood poisoning, and above all, the terrible disease now banished by his work, hospital gangrene. Wounds that should have healed by first intention rotted away and became centers of spreading mortification. In 1852 he left London to become the house surgeon of Dr. James Syme in the Edinburgh Infirmary, where Syme, the most remarkable surgeon of his time, had for twenty years occupied the chair of surgery at the University of Edinburgh. In 1856 he married Agnes, the daughter of Syme. The union was childless.

At Edinburgh Lister found hospital gangrene in abundance and began to attack the problem of finding out the cause of this horrible affection. It was here that he performed his first experiments on the effect of chemical irritants on the skin, this work constituting a notable contribution to the then existing trifling knowledge of the underlying causes of the signs of inflammation.

In 1859, at the age of 33, he was made professor of Clinical Surgery at the University of Glasgow, and a fellow of the Royal Society for his work on inflammation.

Hospital gangrene and blood poisoning so infested the hospitals of the early and middle part of the nineteenth century that it meant almost certain death for a patient with an open wound to be taken to a hospital or to be in a hospital for surgical treatment. The hospitals were filled continuously with the horrible stench from necrotic, suppurating wounds. Practically all wounds became infected, and in the battle between gangrene on the one hand and the natural resistance of man on the other, far too often disease was the victor, and

\*Read before the Eighth District Medical Society, at Hartwell, Ga., Aug. 9, 1922.



when not the victor its poor emaciated opponent was left almost lifeless. The mortality following amputations at Glasgow was 39 per cent. The mortality from hospital gangrene at one of the hospitals in Munich reached 80 per cent at one time.

In preantiseptic days no law regulated the surgeon's toilet; no law of cleanliness existed. Owing to Lister's discoveries, we have adopted the extreme cleanliness which characterizes doctors. Before these discoveries the doctors paid no more attention to cleanliness than any other man. The average operation previous to the Listerian era of surgery may be described as follows: "The surgeon entered the room where the operation was to be performed, rolled up the sleeves of his coat to save the coat, hung the suture material over a button of his coat, sometimes washed the site of operation with soap and water, and proceeded to operate with unwashed hands and with instruments previously washed with soap and water to rid them of blood stains. Instruments used for dressing wounds or lancing abscesses were wiped upon a piece of cloth and kept in the vest pocket."

In 1862 Pasteur showed that putrefaction was due to organisms, thus refuting the belief in the spontaneous generation of life. In 1863 Leuwenhock discovered the existence of microbes. In 1865 Lister began to take great interest in Pasteur's findings, which he used in explaining the putrefaction and contamination of wounds. Pasteur's discoveries caused him to seek measures fitted to prevent and combat the infection of wounds. He immediately began the search for some chemical which would kill the microbes, and chose carbolic acid. Other surgeons had used carbolic acid in wounds to decrease foetor. Lister used it before infection and foetor occurred in the wound. His first patient was a boy of eleven suffering from a compound fracture of both bones of the leg. The wound was dressed with cotton lint soaked in crude carbolic acid, and healed by first intention. After treating several cases of compound fractures with success,

he began to use carbolic acid in the treatment of abscess cavities and sterilized his hands, instruments and ligatures with carbolic acid.

To Lister is due the honor of having introduced animal ligatures into surgical practice. He produced chromic gut. Catgut today is prepared from the submucous layer of the sheep's intestine, has nothing to do with the cat, and possibly never had any relation to that animal. The word catgut is a corruption of the old English word "kitgut," kit meaning fiddle or violin in the old English.

Lister showed that wound infection was due to the introduction of organisms, and it is interesting to note how indifferent the English surgeons were to his doctrines, the London surgeons especially being slow in adopting his methods of treating wounds. The leading surgeons of France and Germany were quick to employ his technique, England and America being the last to fall in line. The antiseptic system was finally accepted in 1879.

In a review of the earlier work on antiseptic methods in surgery the work of Semmelweiss, of Vienna, deserves especial mention. In the eighteen forties he made all of the students under him in the maternity hospital wash their hands thoroughly and use chlorinated lime as a disinfectant before examining patients. By the adoption of this technique the high maternal mortality was reduced to 1-3 per cent.

Lister, after a thorough and highly successful test of his antiseptic methods at Glasgow, where his ability was not recognized, was recalled to Edinburgh, where James Syme championed his cause. Edinburgh in the seventies was the most brilliant center of medical learning in the United Kingdom, and Lister's ideas were rapidly spread and adopted by visiting surgeons.

Lister's experiments with dressing materials led to the production of the bland cyanide of mercury gauze, and Queen Victoria, suffering from a large abscess under her arm, was very much relieved by the

good drainage established through the use by Lister of a rubber drainage tube. This marked the introduction of hollow tubes for drainage purposes.

Lister was called to London in 1877, where he lived and worked until the time of his death in 1912. At the time of his return to the great city its leading surgeons were still not inclined to adopt his methods of wound treatment; however, after several demonstrations before prominent London surgeons, his technique was finally accepted. Holmes' System of Surgery, published in 1882, contains articles by Lister on excision of the wrist, wiring of the patella and amputations. In 1861 Lister laid down the first principles of the administration of chloroform.

Comparison enables us to measure the progress of the human mind toward the material betterment of conditions in any line of work. Applying the method of comparison to things medical, what a great change was wrought by Gorgas and his co-workers in the living conditions on the Isthmus of Panama. Yellow fever and malaria decimated the population in a region which is now probably the healthiest spot on the globe and is free from all fevers. Read of the horrible hospital gangrene of the middle of the nineteenth century and compare those conditions with the present, and one immediately sees what a great change has been brought about by the application of principles worked out and believed in by a surgeon whose first impulse on entering one of the early hospitals was to relieve and prevent, if possible, the great pain and loss of life incident to the supuration of wounds.

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Physical Diagnosis, by W. D. Rose, M. D., lecturer on Physical Diagnosis and associate professor of medicine in University of Arkansas; visiting physician Little Rock City Hospital, Baptist Hospital and St. Vincent's Infirmary, Little Rock, Ark. Third edition, 319 illustrations, 755 pages. Price, \$8.50. C. V. Mosby Co., St. Louis, Mo.

## SOME CONSIDERATIONS OF BLOOD PRESSURE.\*

### With Brief Case Reports.

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In presenting this paper your essayist may be pardoned an apologetic introduction, inasmuch as after the subject had been sent in to the program, he found that he had tackled a rather large and comprehensive symptom. Indeed, he would be presumptuous in any endeavor at adding to the sum of knowledge on this subject of any of his distinguished hearers, and will confine himself to a synoptic consideration of a symptom probably as ubiquitous in its occurrence as a rise in temperature or increase in pulse rate.

During the early days after the invention and perfection of instruments for detecting and recording the pressure of circulating blood in the vascular system, the profession as a whole exhibited a strong tendency to overestimate the value of such determinations. Some went so far as to endeavor to reduce to mathematical and geometrical precision blood pressure charts with their findings. Fortunately, we have found out that such a host of influences affect the blood pressure, that we have again taken it less seriously, and have begun to associate with it the whole symptom complex of the pathology that might produce a variation from its normal.

To begin with, arterial hyper- and hypotension are pathognomonic of nothing; yet either of these conditions, themselves dependent upon an underlying cause, can, in their turn, produce a host of disturbing symptoms, light or grave, as the patient reacts to them, that demand attention and seek relief. It does not require an exhaustive study of the mechanics of the vascular system, its physiology, nor a consideration of the rules of hydraulics, to recognize the truth of this statement. Daily patients present themselves to us with variations from the usual normal range of diastolic, systolic and pulse pres-

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tures among their host of concomitant symptoms, and if this unscientific essay can impress upon us that we should neither magnify, nor minimize, this important symptom, as often the patients' lives, as well as comfort, depend upon its recognition and its correction through treatment not only of its underlying cause, but the symptom itself, in many instances.

Did I say that years ago we paid too much attention to this detail, and now that the laity are learning its significance, many of us are neglecting its importance? Let me not lay that tendency up among our faults, but rather let me urge that we make a little more intelligent use of our findings.

Before presenting practical considerations, let us divide our subject into its two main groups, leaving out, for the present, other subdivisions: Let us consider first hypertension, and touch lightly upon the disease conditions in which it is a pronounced symptom: As all of us know, chronic interstitial nephritis is the most common of all diseases accompanied invariably during most of its course by a persistently high systolic blood pressure, with a high pulse pressure. In fact, it is in this disease that we find the highest recorded systolic pressures. Too much cannot be said in favor of the constant use of the sphygmomanometer in these cases in guarding against beginning circulatory failure, the probable incidence of other serious complaints, etc., all of which are, to a certain extent, mirrored in the blood pressure findings. It is not necessary to detail the significance of the changes and what they might mean.

Next in order is arteriosclerosis, concerning all the causes of which, after years of study, we are still in doubt. We will probably remain in doubt until we conquer the secrets of all the internal secretions and the subtle chemical changes occurring in every structure of the body accompanying metabolism and growth of every department. We know dozens of conditions and diseases that tend to produce this malady, which after all, is probably only a

symptom, too, just as induration, etc., around superficial infections, but we have at our hands in consideration of the blood pressure findings, a valuable aid in keeping tab on its inroads.

The two above mentioned conditions are so interlinked with cardiac pathology that it might have been well to consider them together. However, the blood pressure instrument is such a valuable aid to diagnosis and prognosis in such a vast number of cardiac cases, that it is just as well that we consider it separately. Oftentimes, as many of you know, changes in compensation, while manifested in subjective symptoms distressing in the extreme, can be pictured often by the blood pressure findings.

It would be impossible within the scope of this paper to consider every condition of the organism or incidence of disease affecting the blood pressure, so we will be content merely to enumerate a few others causing a hypertension:

Exophthalmic goitre; angina pectoris; many cerebral conditions; chronic plumbism; obesity; diabetes (uncomplicated); meningitis, etc. Uremia and the toxemias of pregnancy are invariably accompanied by marked increase in blood pressure. Here let me pause to state that the routine taking of the blood pressure in pregnant women is of far more value than the common practice of periodic cursory examination of the specimen of urine. No physician should consider his duty to his obstetrical engagement discharged conscientiously unless he keeps track of this important matter.

In arterial hypotension, we are dealing with a condition that has had too little emphasis laid upon it by the profession in general and we are dealing with a symptom which, with its underlying causes, can take just as much of the joy out of life of both patient and physician as probably might be the case with any of the conditions already mentioned. To say the least, the writer has had greater difficulty in relieving the subjective symptoms and discomfort accompanying this latter symp-

tom than has been his experience with many of the causes of hypertension.

As a rule, hypotension gets scant notice from most of us, because the laity are constantly talking "high blood pressure," knowing of no other kind. The insurance companies, recognizing the value of pulse pressure, diastolic pressure, and the significance of marked deviations from normal figures in any of these in any direction, and having found twenty-five or more per cent of their mortality occurring in diseases accompanied by hypertension, themselves have had very little experience in that vast number of cases that "peter out" on them through diseases accompanied by, and in many cases having as their most prominent symptom, a persistent hypotension.

We are prone to think of hypotension only in debility and wasting diseases, the cachexias, tuberculosis, cancer, some of the cases of cardiac dilation, mitral stenosis, amyloid kidney (which few of us diagnose anyway), shock, etc. We give scant study to that host of cases, which we say are "born tired and had a relapse." The writer believes that, with a renewed effort at reaching the real cause of many of the cases of this kind and character, in which the diagnosis is so obscure that many of us give them up in disgust as "hyps", we will enter a promising and interesting field now exploited by quacks and advertising fakirs.

The writer is frank enough to confess that he does not understand by any means all he thinks he knows about ductless glands, internal secretions, etc., even after reading Sajous, and a dozen other authors, who, in their erudition explore mysterious paths. But it will not be a "journey into lantern land" if most of us would recognize that He who created a tiny blade of grass so intricately and controls its growth so mysteriously, that none other of His creatures could successfully imitate its creation nor ape its processes of life and growth, could at the same time have built into His masterpiece processes as mysterious as the creative Force itself to govern

the surpassingly complex chemical and physical actions and reactions constantly going on within the human body. Pardon this digression, but we are just beginning to study chemistry as it relates to metabolic processes in the human body. We are just commencing to see "face to face," where before we saw "as through a glass darkly."

Now, back to the study of Blood Pressure, of course, it is impossible to state that such and such a condition will invariably result in either hypertension or hypotension. We find both conditions in different stages of the same disease, often. While in a disease in which one is present, a condition or complication might arise that would produce either a normal blood pressure reading, or a change to the opposite findings.

Understand, in this paper, the emphasis is not laid upon this examination and its findings as the symptom, if found, that is either the main or leading symptom of the condition which is to be diagnosed. It is simply such an aid sometimes. The entire symptomatology must be canvassed, just as it is when we find by the clinical thermometer an elevation of temperature. The clinical picture must be seen in its entirety. The rippling brook, with its browsing cows in the foreground, must not claim the exclusive attention of the art connoisseur in the inspection of the showing of the art gallery, if he would not miss the glorious tintings of the sunset sky and the noble trees that make the magnificent background in the landscape.

So much for the didactic. If the mere calling of your attention to the importance of routine blood pressure examinations in practically all your cases, and especially the daily test in your bed patients suffering from various maladies, and the occasional test of your chronics, can increase your desire for study of this most interesting subject, this writer will compliment himself that this hastily prepared paper has served some purpose.

Now for a few brief case reports:

Case 1. Mrs. A. E. Female, 44, widow.



This case gave history of slight stroke of paralysis—in bed two weeks—about a month before her first treatment by me. History further of persistent and chronic headaches of dull character, mostly in frontal region. She was lethargic, inactive, extremely melancholic, complained of vertigo, numbness and weakness of right leg from hip to foot, left leg from knee down, and what she described as a constant heavy feeling in her head. Her blood pressure taken at her home the first time was 220 mm. systolic. She was put on the usual treatment of sodium iodide, elimination, etc. Ten days afterwards her blood pressure was 190, when I began treatment by autocondensation with the D'Arsonval current. This treatment, with the medicinal and dietary, has been continued, the former now being used only once or twice a month when necessary, the latter also as required, for the past two years. Her pressure (systolic) now rarely runs above 150 mm., and she has been free of headaches since the first treatment, doing all her own work, with no vertigo, nor other pains. Still melancholic, however. You will note I gave no diagnosis. The urine was clear. You may guess.

2. A. H., male, aged 45, married, height 6 ft. 1 in., weight 220 lbs. Occupation, superintendent machine shop and foundry. History of dissipation, high life, etc. Wasserman, negative; pulse 90 to 100 constantly. History of rheumatism, constipation, bleeding piles, occasional blinding headaches, which he attributed to "biliousness," being usually relieved by brisk catharsis. Maximal systolic blood pressure 200 mm. Urine, negative. Diagnosis: arteriosclerosis, cardiac hypertrophy. Under constant observation for about a month only, during which time, with 14 office treatments with D'Arsonval current, his systolic blood pressure was reduced to 158. He removed from the city, and I have lost track of him. He, of course, received the usual advice about purin-free diet, correction of habits, elimination, abstinence, etc.

3. J. L. McV., male, aged 63, married,

height 5 ft. 2¼ in., weight 100¼ lbs. History of family negative; personal: Had stroke of paralysis, left hemiplegia, 12 years ago; still shows trace of same. Present complaint of "indigestion" only, which is with him almost constantly in the shape of a pain in the epigastrium increased on eating, with occasional headaches. Anemic in appearance, anxious expression, halting speech—not scanning. No Wasserman made, considering available symptoms, examination and history sufficient. Urine: output small, color pale, specific gravity 1008; trace of albumin. Diagnosis on this and blood pressure of 220 to 224 on several successive examinations, Endarteritis, especially of abdominal aorta, together with a chronic interstitial nephritis. On this case I experimentally used the D'Arsonval current, reducing the blood pressure 20 to 30 mm. at each sitting, with a subsequent rise to original readings. It was abandoned for obvious reasons. The usual routine treatment of these cases was instituted, but he has been advised that an occasional blood pressure examination should be made, not so much to determine an increase, but to see that compensation of both heart and kidney is not failing him. These old cardio-nephritics have just as much to fear from a sudden drop in systolic pressure as a gradual rise.

4. The next case, if you will pardon me, is one of which the writer is a little proud, not from a standpoint of cure, for that is impossible, but for the relief occasioned after other measures failed. Miss J. G., aged 60, spinster. Family history: Father had paralysis (apoplexy, third stroke); brother and sister now living suffering from kidney troubles, undiagnosed or differentiated. Personal history: Indigestion for years, with acid eructations and regurgitations, fermentative type of gastritis apparently troubling for years. Recently (at time of first examination) had been treated for vertigo, headaches, pains in epigastrium and constipation. Leave the diagnosis with you. This old soul, contrary to possibly best advice, was given every-other-day seances with the high fre-

quency current, during which time her systolic blood pressure was reduced from 180 mm. to a minimum, remarkable to say, of 138. She occasionally, once every two or three months, comes to me for a treatment, when she gets a little vertigo, and I have never since found her blood pressure over 160 mm. systolic. This case is mentioned, as are the foregoing, not to boost or recommend a method of indiscriminate treatment, but to call attention in each of them where complaints of headaches and other pains accompany the symptom of hypertension, how the symptoms usually to be attributed to this outstanding one are relieved when the hypertension is reduced.

5. Mrs. R., sister of above case, 4 years younger, same history, practically same symptoms, and same results.

Leaving consideration of hypertension, I beg leave to submit just two cases showing marked degree of hypotension:

1. H. K., male, aged 13 years, single, student, height 5 ft., weight 123¼ lbs. Family history: Father habitual drunkard up to year or two after birth of this boy; mother, neurasthenic. Personal history: Malaria years ago; influenza years ago; nervous and sick headaches frequent for several years, during which he gets some relief from vomiting. Pulse gets weak and rapid frequently. Eyes operated for strabismus recently. Tonsils hypertrophied, evidence of adenoids. Diagnosis, after finding systolic blood pressure, 90 mm. Obscure toxemia, together with possibly hypothyroidism and hypopituitarism or deficient adrenal secretion, judged from overweight. After removal of tonsils and adenoids, correction of diet by elimination of most carbohydrates, etc., and administration of thyroid and antero-pituitary for several weeks, his weight was 118½, and his blood pressure 112 mm. systolic. He can now run and play, which before was impossible without cardiac distress.

2. Mrs. C. B., aged 32, married, height 5 ft. 1 in., weight 110 lbs. Family history: Father died of cancer, otherwise negative. Personal history: Two miscarriages, one premature labor, one living healthy child.

Chief complaint, extreme weakness, vertigo, numbness of extremities, feeling of "emptiness" in head. Temperature invariably half to one degree subnormal, pulse 90 to 100. No history of malaria, but has had number of similar attacks to this. Diagnosis: hypoadrenia, based mostly on a systolic blood pressure of only 90 mm. and absence of other definite lesions to which the hypotension can be attributed. Now and recently under treatment. Your discussion invited and solicited.

I thank you.

#### REMARKS ON FOCAL INFECTION WITH REPORT OF ILLUSTRATIVE CASES.\*

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I have purposely not given the cases in great detail, nor have I attempted to cover the entire subject. Also, there are many exceptions to any rule, and more especially is this true of infections.

When I began the practice of medicine in 1909 little was known about focal infections, and it had not been emphasized in the literature. Pretty soon I was called to see a middle-aged woman who had been ill for several months with slow fever. It ran from 99 to 101 every day. After examining her I was at a loss to know what to do. The teeth were all badly decayed and the gums were full of pus; however, I had not the slightest idea this had anything to do with causing the fever, but I advised that she have them removed and others put in as an aid to her eating. To my surprise, the fever disappeared in a few days and she improved rapidly and got well. I wondered over this case a lot, and had several similar cases see the dentist with very gratifying results for most of them. Later on I had treated a lady through several attacks of recurrent endocarditis; and it was during one of these that she appealed to me to know if there was not something I could do to prevent another attack. I had examined her repeatedly and could suggest nothing but a

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tonsillectomy, and I told her frankly that I had very little hope of any good from that as her tonsils were very small and normal looking; but having seen endocarditis in children with bad adenoids and tonsils, I thought it might do good. She replied that whether the operation would do good or not, she wanted it done as soon as her condition warranted. Two months later I removed the small, submerged tonsils, and I distinctly remember feeling ashamed that I had put her through an operation so uselessly. But she has never been ill with her heart since.

Ten years ago I had put a man of fifty to bed on account of a failing heart muscle, attacks of breathlessness, pain in the heart, and a feeling that he was about to die. I could find no cause for the trouble till after several days his micturition became frequent with pain and fullness in the perineum. On examining the prostate, it showed up enlarged, boggy and very tender, and yielded much pus on massage. We persisted in the prostatic treatment, and his heart condition rapidly healed and he has had no return of it. Pretty soon, in another case, of myocardial degeneration in a man of 48 without evident cause, I was able to produce quantities of pus from his prostate. Proper treatment of this prostate cured his heart and he has had no recurrence. Both these patients had gonorrhoea before they were twenty, and the prostate had been a focus of infection ever since.

Having had my attention so forcibly directed to the probability of systemic infection from chronic pus foci, and having studied the many excellent articles on the subject, together with the wonderful experimental work others have done along this line, I have come to the conclusion that focal infection is the most important subject in the whole realm of medicine and surgery. The investigation and clinical results of the most eminent physicians give abundant proof that this conclusion is justified. The conscientious surgeon and internist have become more interested in the tonsils than the laryngologist; and in

bad teeth than the dentist. Indeed, it would be much in the interest of the patient if the internist, surgeon, laryngologist and venereal disease specialist each should attend frequently the clinic of the other. I recently assisted in a gastroenterostomy in a woman of 50 who had a stomach history of seventeen years' duration. Her teeth had been bad for twenty-five years, and she had lost all the upper and most of the lower ones. Six weeks previously the surgeon in charge of the case had referred her to her regular dentist to have the mouth freed of pus before operation. When she came back I examined her mouth and the remaining teeth were badly decayed and literally swimming in pus. If that dentist had known just how much that mouth condition had had to do in causing the multiple ulcers we found at the operation, he would certainly have found more dental surgery indicated. Another case of myocarditis was wearing an upper plate over the roots of two molars, and the dentist who did that job owns and operates his own x-ray. One great failing I find with many dentists is the habit of treating an abscessed tooth for several months trying to get it well so that it can be filled. Such a tooth is certain to cause systemic infection some time if left alone. Recently I saw a young married woman with severe septic fever from pus in the lip from an abscessed upper incisor that her dentist had been treating for over a year. I evacuated the pus and remarked that it was a wonder her heart had not become involved, and told her that if her feet began to swell when she was out of bed to bring a specimen of urine for examination. A week later she did come in with general oedema and albumenuria. Her fever was 101 and she had a presystolic murmur and thrill. Here was a case of acute carditis and nephritis with a three months' pregnancy, and a mighty nice job for somebody to worry over for the next seven months. The dentist could have cured her a year ago; but now she has a souvenir of that tooth that she will carry with her to the grave.

There is one thing about these cases, and that is, no matter how old the patient nor how hopeless the secondary lesion may appear, removal of the primary focus always does a world of good. As illustration, three years ago I saw a man of 70 in acute heart failure. He was deeply cyanotic, gasping for breath, cold and clammy, and rattling with acute pulmonary oedema. Prompt venesection relieved the situation, and examination showed all his teeth with the prettiest gold crowns you ever saw, and all of them fairly floating in pus. I had them removed while he was still in bed, and he had a slow convalescence but got well and has remained so.

The primary pus foci most frequently found are in the tonsils, teeth and gums, and less frequently the posterior nares, sinuses, bronchial tree, prostate, or an old lacerated cervix uteri. The heart is by far the most frequent secondary focus, and then comes the stomach, the duodenum, the gall bladder, the appendix, the large intestine, the kidney, the bones and joints, and the nervous system.

The tonsils require special mention. For clinical purposes I divide them into two groups, the submerged and those not submerged. The former give trouble from absorption because their crypts cannot drain freely, and more especially if the pillars are adherent to the tonsils. This type is always troublesome. Also, the greater area of the tonsil the capsule may cover five-sixths of the tonsillar surface, and in the pendulous type it may not cover over one-sixth. These facts are most important and explain why small tonsils frequently do so much harm and the very large ones do not. Kaiser (J. A. M. A., June, of this year), in examining five thousand children one year after tonsillectomy, found that those operated for the large hypertrophied tonsil only showed the least improvement. That is exactly what you would expect, because that type tonsil usually does harm only by obstructing the air passages and not by absorption, as it has freer drainage. Much has been said about the cryptic tonsil, many claiming

that the cheesy material in them is not infectious. Granting that is true, the cheesy material remaining in the crypts and distending them is a foreign body causing constant congestion, rendering the throat a fertile field for any infection that happens along. For these reasons it is proper to advise the removal of all tonsils that are submerged or cryptic.

Many cases with the worst systemic infection do not complain of throat trouble at all; but a careful examination of the buried, apparently small tonsils with the tonsil compressor will show definite disease. No one can tell what is in the tonsillar fossa till he gets in there at operation—nor can he tell what the size of the tonsil is till he has it out of the fossa. Some of my cases that had been ailing and under observation for years, when finally the tonsils were condemned showed a surprising amount of pus behind the pillars at operation. Often the secondary focus is out of all proportion to the primary focus; and after careful examination, if there is any doubt, the tonsillectomy should be done. I have no patience with the critics of carefully done tonsil surgery, and a great deal of harm has been done by them by creating prejudice among the laity. One thing is certain, and that is, many, many more tonsils and teeth are needing surgery than have ever had it unnecessarily; and I repeat, if there is any doubt, remove them. It has been frequently intimated, but has never been proven, that the person without tonsils is handicapped in some way. On the other hand, it is known that the incidence of the dreaded hemolytic streptococcus is much less in the throats without tonsils, and that scarlet fever and diphtheria are more frequent as well as more malignant in those with tonsils.

In children, especially those with obstructed air passages, the earlier in life the tonsils-adenoidectomy is done, the better their results. It not only saves the vital organs from permanent damage from secondary infection, but it conserves the normal development of the nose, throat and



thorax. If a child does not breathe through his nose till he is four, six or ten years old on account of obstructing adenoids, he will never have adequate nasal breathing because the nose has never functioned nor developed. The roof of the mouth remains high and the dental arch becomes narrowed on account of the constantly open mouth. The only help for such a case is to get a dentist to widen the dental arch and thereby lower the floor of the nose, and possibly a submucous resection of the septum nasi later on.

Lately a great deal has been said about the treatment of tonsils with the Roentgen ray and radium, and I want to sound a warning against its general adoption. Such treatment is suited only to the large pendulous tonsil with a small base, and properly applied it will make it disappear as if by magic. To use this treatment with the other type tonsils would be criminal, as it cannot remove the infectious focus. Furthermore, only the lymphatic tissue is destroyed, leaving the capsule and all the fibrous and scar tissue.

The heart deserves special mention because heart disease is causing more deaths than cancer or tuberculosis, and it is most often a secondary focus. It is almost always affected, no matter what other organs may be involved. These heart lesions become subacute infections and remain so till all primary foci have been removed. In fact, this type of carditis is almost never acute, but comes on so insidiously there is no intimation of disease till a crash comes and an incurable lesion has developed. I say carditis advisedly because usually the whole heart is involved. I want to make a plea for the cure of heart and kidney disease before the terminal pathology has developed. This is being done in the case of the stomach, gall bladder and appendix, and there is no more reason why the heart should go on to the development of permanent valvular and vascular lesions than that the appendix should be allowed to go on to the development of pus before it is operated. But you say, "How is this to be done?" By be-

ing constantly on the lookout for these primary foci and by prompt and efficient treatment of them. Many times have I rightly made a diagnosis of carditis when the only evidence I had was the existence for a considerable time of a focus sufficient to cause it. Lots of my tonsillectomy cases in children with every evidence of systemic infection but no palpable valvular lesion have shown at a later examination a definite valvular defect. That lesion was most assuredly present at the time of the operation, but the scar had not yet contracted to cause the physical signs. The time to cure these heart and kidney cases is before they have developed; or, to put it differently, if the heart and kidneys are protected from infection, they will not become diseased. However, after a lesion has become evident, it is most urgent that proper treatment be instituted at once; and no physician has done his duty in treating these secondary foci till he has made a careful search for, and removed all primary foci. Remove the cause and the lesion will usually heal of its own accord. Those cases that do not get well and stay well almost always show an incompletely removed focus or additional foci. It is to be emphasized that the smallest focus is capable of keeping a lesion fired up once it has been started, and it is absolutely essential to make a clean job of it.

A brief report of three cases will show what can happen from focal infection.

Four months ago I saw a man of 30 who had been ill for three years, not in bed, however, but unable to attend his work for the last year. His chief complaint was pain in the left chest, and the whole upper abdomen. Indigestion had been prominent and he had had sick headache one to four times a week for about three years. For a year and a half he had fever, and has had anti-malaria treatment continuously for a year. On examination, he has very small, submerged tonsils; and both of them under firm pressure yielded pus that trickled down the throat like an abscess. The heart was enlarged and showed a presystolic thrill and murmur. His tem-

perature ran from 96.5 to 101. With duodenobiliary drainage the gall bladder yielded over two ounces of pure pus; and there was a great deal of mucus in the duodenum.

Diagnosis: Chronic infected tonsils; active carditis with mitral stenosis already developed; cholecystitis, and duodenitis. He was put to bed with ice bag to the precordium, with the biliary drainage repeated every other day at first and then more infrequently. After a few weeks the fever had about subsided, and the tonsils were removed under local anesthesia. They proved to be unusually large ones. The fever and headaches have gone and his improvement has been steady, but he is still under treatment.

The next case is that of a young woman of 20 whose trouble began over a year ago when she was two months pregnant. There was headaches, nausea, oedema of face and feet, albumenuria, fever at times, with high blood pressure all the time up to delivery, when it was 190. Since then, which was eight months ago, she has not been at all well; but has been treated for malaria because of the fever she has. Her chief complaint is headache, slight swelling of the face and feet, and she tires easily. Examination showed a definite mitral lesion with hypertrophy and dilatation, the blood pressure is S. 185, D. 100. Marked albumenuria with Sp. Gr. 1002, and the temperature 102. The tonsils are buried and adherent and are definitely infected; and she gives a history of frequent throat attacks. Diagnosis: Active carditis and nephritis secondary to the infection in the tonsils. She was put to bed with the usual ice bags, hot baths, diet, etc., and has begun to get better. The fever is gone, blood pressure is 150 95, and the albumen test shows only a trace with the Sp. Gr. up to 1007. When she is a little better her tonsils will be removed under local anesthesia, and she will be kept under surveillance for a long time. I expect her to get well; but there is a scar in that heart and those kidneys that will always have to be respected. The most serious danger for these cases is the fre-

quent recrudescence of the subacute inflammation from the primary focus, more damage being left with each new attack. She has already developed terminal pathology, and the time to have cured her has long since passed.

The next case is under treatment now and is interesting as an example of what can happen from a chronic focal infection. A female, age 44, has always had trouble with her throat; had diphtheria at 16 and 27, both attacks being severe; had mastoiditis at 32, very ill for seven weeks, no operation; had frontal sinusitis six and eight years ago for ten days each time; had "flu" in 1918, pretty ill for three weeks, but made good recovery; and has always been well and strong except for the almost constant throat trouble. The blood pressure for the past eight years has ranged from 210 to 290. A tonsillectomy was attempted eight years ago, but was abandoned on account of hemorrhage, and there has been many retinal hemorrhages lately. She came complaining of pain, numbness, and tingling in the left side of the face and in the left hand, and shortness of breath and lack of staying power. She is very nervous and high strung. There is moderate emaciation with a hemoglobin of 45, the tonsils are submerged and adherent and yield pus freely on pressure, the heart is very large with a mitral leak and the aorta dilated, the urine is normal for albumen with a functional test of 70, the temperature is now 102 and the ankles are swollen most of the time. Here is a case that has been walking on very thin ice for eight years, and the prospect for doing anything for her is very remote. However, she has been put to bed with the usual ice bag, hot baths and proper diet; and there has been some improvement. The fever has gone, the nervous symptoms are all better and she sleeps well, and the blood pressure has fallen to 190 S. and 120 D. If she makes further progress, the tonsils will be removed, and she will necessarily have to be under treatment for a long time. The outlook for her is most unpromising, but not by any means hopeless.



## PRINCIPLES UNDERLYING THE MANAGEMENT OF OSTEOMYELITIS.\*

Maxwell Harbin, M. D.,  
Rome, Ga.

Inflammatory conditions of bones of the non-tubercular variety may be divided into osteomyelitis of the acute and subacute types, periostitis per se and the chronic or residual foci known as Brodie's abscess.

It is with the management of these conditions which I wish to speak.

These infections are usually hematogenous in origin, although a few result from infection secondary to trauma.

The symptoms of osteomyelitis you are all familiar with, and I shall not take time to recount them other than to mention certain differential points. It should be remembered that joints adjacent to infected bones often become swollen and may be confused with articular rheumatism, also not infrequently the pain is referred to these joints. In contradistinction to osteomyelitis there is always pain in the joint itself upon motion in rheumatism, and by very careful manipulation of the part this can be determined.

It is also well to remember that redness of the skin over the affected part is dependent upon whether pus has escaped from the medulla and through the periosteum, which is a late symptom.

The same principles of management in osteomyelitis hold true as in other medical or surgical conditions, viz: each patient should be treated as an individual; he should be given a thorough physical examination and especial emphasis should be placed upon the investigation for foci of infection which may be present in tonsils, teeth, sinuses, skin, gastro-intestinal or genito-urinary tracts, not forgetting the gall bladder and appendix. The latter especially in obscure cases for the appendix is comprised of lymphoid tissue just as the tonsils. Fortunately the acute conditions are so definitely manifest that the history, physical examination and temperature chart are all that is necessary in order

to arrive at a diagnosis, the W. B. C. is important evidence and should always be used to determine the reaction of the individual. It is well to remember that during the first ten days the X-ray will give no definite evidence of the process. After the acute stage, however, the X-ray is our most important adjunct to determine the extent of the process early, and later to show the development of new bone and the degree of sequestration of the dead bone in order that the time for its removal may be known. It is well always to have a plate of the opposite member in order to determine the normal for each individual.

About 80 per cent of the acute infections occur in the long bones of the lower extremity, first in frequency the tibia with infection occurring in either end; Femur, second, with localization usually in the lower end of the shaft, and remaining 20 per cent are distributed among the other bones. The period of greatest susceptibility is between the ages of six and fourteen.

The surgical treatment of the acute and subacute types is somewhat different, so I shall take them up separately.

Granting the diagnosis of an acute process incision, and drainage should be done immediately over the area of greatest tenderness, as to the method of opening the bone either a trephine or gouge may be used, the important point being to secure free and adequate drainage with a minimum destruction of bone, and here let me emphasize the importance of not using a curet for removal of the medullary portion as this serves to disseminate the infection into new areas, simple adequate drainage is sufficient.

Since it is almost impossible to remove all infection, the placing of Carrel-Dakin tubes at the most dependent points should be done and the part either irrigated continuously or the solution injected in the tubes every two hours; the dressing changed when necessary, observing the strictest aseptic precautions. You will not find this advocated in the next text books, but I have found it by experience to be

\*Read before the Seventh District Medical Society, September 27, 1922.

most valuable in expediting the rapid clearing up of the infection. The closure of the wound being resorted to only when a smear shows not more than 1-3 organisms per 2-3 oil immersion fields.

The subacute or chronic type may be a sequela of the acute infection that has persisted longer with the result that usually there is more bone destruction, and we frequently find the patient has been operated upon one or more times. The problem then, as you may suppose, is a more difficult one. There is often present a thickened eburnated bone with continuous or intermittent pain of mild character which may extend over a period of years. Frequently there are one or two small pieces of dead bone at the bottom of the trouble.

Complete relief can only be obtained by resorting to radical measures, viz: by a sub-periosteal resection of the whole affected part and replacing by an insert at the time of the original operation if the wound is thought to be clean or by Carrelization for several days and then perhaps the use of a bone insert. This latter I do not favor except in a very limited group of cases.

The removal of the dead bone should always be done at the earliest moment at which it is possible to tell how much of the bone is dead. The text books speak of this as though it were an easy decision, but those of you who are familiar with bone work know this frequently not to be the case. The X-ray is our most important help and will usually show a separation between the new and dead bone. Following the removal of the dead bone, regeneration of bone sufficient to permit weight bearing requires from four to six months.

The crux of the treatment is dependent upon asepticising the bone cavity and any method of closure almost will be satisfactory, depending upon this step.

The favorite method of cleansing the cavity at the original operation is swabbing the cavity out with crude carbolic acid, followed immediately with alcohol,

then boiling water, iodine and hot air to dry the part.

Packing as used by the average surgeon, viz: in and around bones that are dead, destroys the healthy granulations and also destroys the normal function of producing new bone throughout its circumference. Ochsner asserts that "this has done more harm to bone surgery than anything which has happened in centuries."

It is important that the part affected should be put at rest until the infection has entirely subsided; fixation in plaster is often indicated and extension of an extremity should be resorted to when there is considerable destruction of bone.

In passing, mention only can be made of the chronic focus of infection known as Brodie's abscess, which develops usually in the head of the tibia or lower end of the femur following an acute osteomyelitis. The abscess may remain quiescent for a period to finally perforate beneath the periosteum. Simple opening, with a trephine and a few day irrigation with Dakin solution are sufficient.

Periostitis of the non-luetic type is not common but does occur. The gonococcus is the most frequent cause. Here the X-ray is usually of great help. In such conditions, an early diagnosis is sometimes difficult, especially in those cases which develop slowly. As to treatment, free incision through the periosteum should be done. Great relief is often afforded in the old cases of traumatic periostitis where pain has persisted for months after an injury, by longitudinal incision, thus splitting the periosteum.

Much has been said in medical print upon the filling of defects in parts where bone has been removed and a multiplicity of elaborate methods of closure have been devised. To reiterate, it would seem, however, that the most important factor in closure is asepsis of the part if this can be secured through the good judgment and technique of the operator, either the method of allowing blood clot to fill the defect and organize, skin flaps sewed down into the bottom of the wound, the placing of



bone chips in the wound or the use of bone wax will be satisfactory. Personally, I prefer the sewing of skin flaps to the lowermost portion of the wound, as it most nearly obliterates dead space and allows for a minimum area to epithelize.

### CONCLUSIONS.

1. Bone infection are not an infrequent occurrence in general surgical work. They usually take origin from the blood stream, while a few result from infection secondary to trauma.

2. Every case should have a thorough physical examination with a critical search for the focus of entry of the offending organism.

3. The diagnosis of the acute types must be made on the history, symptoms and physical signs since the X-ray gives no evidence during the first ten days of the infection.

4. Radical treatment by incision of the periosteum in the acute and removal of all necrotic bone in the older cases is essential; since complete sterilization at the initial operation is almost impossible, it is well to Dakinize the wound either by constant or intermittent irrigation.

5. Any method of filling in bone defects will usually be satisfactory, depending upon the freedom of the wound from infection.

Ophthalmoscopy, Retinoscopy and Refraction, by W. A. Fisher, M. D., F. A. C. S., Chicago, Ill., professor of ophthalmology, Chicago Eye, Ear, Nose and Throat College; late professor of clinical ophthalmology, University of Illinois; late surgeon Illinois Charitable Eye and Ear Infirmary; late president Chicago Ophthalmological Society; member Illinois State Medical Society, Chicago Medical Society, Chicago Ophthalmological Society, American Medical Association; fellow American College of Surgeons; fellow of the Academy of Ophthalmology and Oto-Laryngology. With 248 illustrations, including 48 colored plates. Published by W. A. Fisher, M. D., F. A. C. S., 31 North State Street, Chicago, Ill. Price, \$4.00.

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The National Board of Medical Examiners announces the following dates for its next examinations:

Part I. February 12, 13 and 14, 1923.

Part II: February 15th and 16th, 1923.

The fees for these examinations have been continued at the reduced rate for another year. Applications for these examinations must be forwarded not later than January 1, 1923. Application blanks and circulars of information may be obtained from the Secretary of the National Board, Dr. J. S. Rodman, Medical Arts Building, Philadelphia, Pa.

# THE JOURNAL

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

## EDITORIAL DEPARTMENT

### POST GRADUATE SCHOOLS FOR VETERANS' BUREAU PHYSICIANS.

In order to render the best possible professional care and treatment to disabled ex-service men, Colonel C. R. Forbes, Director of the Veterans' Bureau, announces that he is about to establish Post Graduate Schools for physicians now connected with the Bureau and those who wish to join this service.

There will be two schools for the teaching of the diagnosis, care and treatment of pulmonary tuberculosis, one at Fitzsimons General Hospital, Denver, Colorado, and the other at U. S. Veterans' Hospital No. 41, New Haven, Conn. The course at these hospitals will be uniform and will run simultaneously. Each course will last two months, and will include collateral branches of medicine such as pathology, x-ray, plate interpretation, physiotherapy, etc.

Before attending the Schools physicians now in the Service will be given a prelimi-

nary course which will be established under competent instructors in each of the Veterans' Hospitals for tuberculosis. They will then be selected to take the Post Graduate course at Fitzsimons or New Haven. Specialists not connected with the Bureau will be invited to attend and give lectures to the students. It is anticipated that at least three courses of two months duration each can be run during the year in the east and west.

As more physicians with special knowledge of tuberculosis than are already in the Service will soon be needed it is hoped that this demand will be supplied from the profession at large. Applicants for admission to the Schools with a view to service in Bureau hospitals may be sent to Colonel C. R. Forbes, Director, Veterans' Bureau, Washington, D. C.—Attention Clinical Director of Tuberculosis.

### THE NEW TREATMENT FOR HOOK-WORM DISEASE.

D. M. C. Hall, U. S. Department of Agriculture, seems to be responsible for bringing to our attention the use of carbon tetrachloride as a most effective and safe anthelmintic. It is also relatively inexpensive, being only about 10c per ounce.

The dosage is about 10 drops for a child 5 years of age or under, 20 drops from 5 to 10, 30 drops from 10 to 15, and 45 drops for adults. Indeed, it seems that according to extensive experiments on monkeys and dogs that 10 to 40 times this dosage can be given with safety. As an anthelmintic, according to Hall's experiments, from 98 to 100 per cent of the worms are expelled after a single administration of the drug. It is also quite evident that the drug can, if necessary, be repeated at intervals of a week.

Method of Administration: No preliminary purge, no supper the preceding night, carbon tetrachloride at 6 o'clock next morning, then light food at 7 a. m. Not necessary to follow with saline or other purge as drug itself causes increased peristalsis.

Precautions: The drug must be given



in hard gelatine capsules, and care must be taken to not let any of it escape from the capsule into the mouth or throat.

### DIPHTHERIA IMMUNIZATION.

The question of the immunization of one for Diphtheria is perhaps one of the greatest that we have to consider in the preventive line. It offers the opportunity also of giving the most satisfactory results.

The age period that is most likely to contract the disease is from 6 months to 3 years. The great problem of prevention, then, is very early in life. Very few infants under 3 months are susceptible—from 3 months to 6 months 30 per cent will be positive. From this age to the 5-10 year period it becomes very high.

Passive immunity can be obtained by giving a small dose of Antitoxin. The immunity so induced is very indefinite and short—possibly 3 to 6 weeks. It is not the best procedure, though it is often used. The State Board of Health does not advise it except under exceptional circumstances.

"An immunizing dose of Antitoxin interferes with the production of an active immunity with Toxin-Antitoxin mixtures. In other words, an over-neutralized toxin interferes with the stimulation of antibody formation." (Rosenau.)

All children over 18 months old should be given a Schick and all positives should be given Toxin-Antitoxin. It would be best to give Toxin-Antitoxin to all babies under 18 months. Recent views by Dr. Clark show that 1-30 of the dose of Toxin-Antitoxin first used is sufficient to give permanent immunity against the dread disease. This small dose will not produce a reaction but will prevent the disease—Diphtheria. What a wonderful statement that is.

The package containing the reduced dose will be ready for distribution by the Biological house that furnishes us Antitoxin probably by the time you receive this letter.

Perhaps it would be as well for us to say further along the line of the immunizing dose of Antitoxin that Antitoxic immunity

cannot be depended upon to stamp out the infection. It has several disadvantages that should not be disregarded. The bacilli remain in the throats of those immunized and the disease continued to crop out from time to time as the Antitoxin disappears. It is very expensive, time consuming and the resulting serum reactions often disturbing. Reliance on Antitoxin immunity has been disappointing and futile in many institutions.

There isn't any question that it should not be replaced by Toxin-Antitoxin.

The State Board of Health furnishes the Schick test free, but does not furnish the Toxin-Antitoxin. We furnish culture tubes and make tests for Diphtheria without charge.

Bo co-operation we can entirely eradicate Diphtheria. Don't you think it worth while?

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Dear Doctor:

A vast amount of evidence shows that when we induce our patients to take the Standard Treatment of 10 grains of quinine every night for 8 weeks, they are nearly always cured of their malaria and have no recurrences.

Many of the cases that have been treated this year are up and going, but they have parasites in their blood, and may have recurrences and infect many new mosquitoes next year. Malaria probably goes over the winter in the blood of human carriers and not in hibernating mosquitoes.

Doctor, now is the best time to persuade your malaria patients to sterilize their blood when the memory of this year's suffering is still fresh. They do not like to take quinine, but you will be surprised at the number you can get to go through with the treatment if you make them a clear explanation and be very positive with them.

May we not beg you to list up your malarial cases of this year and try to get all of them to take the dose of quinine daily for 8 weeks.

T. F. ABERCROMBIE  
Collaborating Epidemiologist.

Mr. President and Gentlemen of the Staff, Davis-Fischer Sanitarium.

We, the committee appointed to draft resolutions on the death of Dr. A. M. Andersen beg leave to submit the following:

DR. A. M. ANDERSON.

Dr. Anderson graduated in the class of 1895 at the old Atlanta Medical College, and was the first man to register under the law creating the State Board of Medical Examiners in Georgia, his name alphabetically heading the list. Shortly after graduating he went to New York with the idea of taking up special work in the eye, ear and throat, but accepted a position as interne at the Hospital at Randalls Island. After serving his internship at that Institution he was offered a position as surgeon with a British Mining Company in Ecuador, where he spent five years. While in that tropical land he learned to speak Spanish fluently, which was quite an asset to him, in his clinical work, in New York. He returned to America at the end of five years and was married to Miss Martha Goode, of Atlanta. On reaching New York on his way back to his post, he received a telegram stating that owing to the worldwide financial trouble at that time the English Company had suspended its operations in Ecuador, and to await further orders before returning. He decided to stay in New York, where he had to wait several months before he could take the State Board of that State and get his license to practice. With this out of his way, and starting literally at the bottom, he spent the remaining years of his stay in New York in the work to which he gave his whole life, and which had always been the one which attracted him most, confining his attention entirely to the ear, nose and throat, and finally specializing in the accessory sinuses of the nose. His interest in this was so intense that it occupied his whole thought. There was nothing which could take his attention long from his chosen work.

He carried into his mature years all the

zeal and enthusiasm of a beginner. Within a few years he became an instructor, and later an associate professor of laryngology at the New York Poly-Clinic, and it is safe to say that there was no clinic in the city where students received more courteous treatment, or greater opportunities for actual experience, provided they brought to their work the same love and enthusiasm which actuated the chief of the service.

There are men all over the United States today who can look back to the opportunities and instruction which they received in Dr. Anderson's service, for their start in nose and throat work. They were not only his pupils, but his personal friends. They took their inspiration from their chief. He devised a number of instruments which are not only used in the United States, but in Europe, and everything he put out was of practical value.

But he always looked back to Georgia as the promised land, so at an age when most men consider that they are settled for life, moved back to his native State to live among friends and start over again in a new place, burning his bridges behind him, and beginning his professional work anew with just as much enthusiasm and optimism as he possessed nearly a quarter of a century ago, when alone and without means he started to make a place for himself in New York. He had already proved the accuracy of his judgment and had made a success in his new field when his career was so unexpectedly ended. He had the very rare trait of being able to preserve all his enthusiasm for his work through long years of service as fresh as it was the day he began. The days passed and he did not grow old. He had to a remarkable degree the power of inspiring confidence in his patients, and his sympathy and fairness and sterling honesty were plain to all who knew him. Like Nathaniel of old, it may be truthfully said of him that "In him there was no guile."

Those who knew him best were the ones who loved him most and will miss him long-



est. When he died there passed from among us a gentleman unafraid.

Be it resolved: The Fulton County Medical Society, the Medical Association of Georgia and the Medical profession as a whole lost in the death of Dr. Anderson, a faithful member, a loyal supporter, and a splendid contributor.

The members of the Staff of Davis-Fischer Sanatorium lost a regular attendant, a helpful councillor and a warm personal friend.

The members of your committee wish to acknowledge the assistance rendered them by Dr. Newton Craig, who was for many years a student under Dr. Anderson and a close friend.

Respectfully,

A. G. FORT, Chairman,

J. R. CHILDS,

E. S. COLVIN,

Committee.

#### A BRITISH ESTIMATE OF CHIROPRACTIC AND OSTEOPATHY.

We all have burdens to bear. In Great Britain, as the British Medical Journal points out, the medical profession had to contend with the "medical clubs," but "the campaign against cheap medical schools and inferior medical qualifications . . . has been unnecessary in the British Empire." Parenthetically, our British colleague credits the American Medical Association for the complete victory which now, it hopes, has been gained over these American evils. With an eye to the future, the British Journal now considers the medical cults which seem to be firmly established in America. It appears that a host of publicity agents and advertising experts has descended on London in a sporadic raid for the establishment of osteopathy. The British Medical Journal publishes an analysis of the report of the Massachusetts Medical Society on the principles underlying these manipulative cults. It is unnecessary here to repeat the fallacies pointed out or to show the absolute lack of any scientific evidence for the systems of therapy built on misconceptions. Here,

however, is the estimate of our British confreres on these massotherapists and spinal manipulators:

It may appear to observers at a great distance that osteopathy and chiropractic are little more than terminological adaptations of bone-setting, with the site of operation cleverly transferred from the knee or the ankle, where results (if any) can at least be seen, to the backbone, where they cannot.—J. A. M. A., Oct. 14, 1922.

#### IS PARENTAGE DETERMINABLE BY BLOOD TESTS?

Study of the reactions of the body to microbes, microbic products and other protein materials has given us several tests of great value. Agglutination, complement fixation, opsonification, the allergic phenomena and serum precipitation have all been put to practical use in more or less simple tests, some of which are in daily use in modern medical practice. In the case of blood and also certain other protein substances, the most practical method of identification is the precipitin test, which is used generally to determine the nature of blood stains for medicolegal purposes. This test rests on the fact that when a suitable animal, and that means usually the rabbit, is injected with the blood proteins of a different species, its serum forms a precipitate on contact with such proteins. In the course of the immunization, newly formed substances accumulate in the blood, and the action of these precipitins is limited to proteins of the same kind as those that were injected.

The case with which human blood is identified by virtue of the species specificity of the precipitin test soon led to the thought that, haply, different human races and even individuals might be distinguishable by means of special precipitin reactions; but so far no progress in that direction is recorded, and the idea occasionally expressed that on account of its discriminating delicacy the precipitin test should be of value in the determination of questions of percentage has no foundation. Whether antigenic substances do exist that are peculiar to individuals and their offspring is a problem for the future;

at present, certain hereditary characteristics seem to offer the better field for the study of parental identity.

The fact that the grouping of persons by isoagglutination—now become generally known since its importance in blood transfusion was stated (1)—appears to be hereditary in nature (2) has led Ottenberg (3) to advocate its use as a means of determining parentage. Without attempting to enter into details, the main point in Ottenberg's conclusion from studying 603 persons in 139 families is that if a child's blood group is in harmony with the blood grouping of the alleged parents, it may be their child; on the contrary, if the child's blood does not group itself in harmony with the parental groupings, it must have a parent other than one of those claimed. We see that, at best, the methods obviously would have marked limitations in practice, and that its results in a given case would fall far short of direct identification of any individual as the parent. And Buchanan (4) regards Ottenberg's criteria as unsafe, even if the grouping could be carried back for three generations, because of the possibility that the heterozygous status of a parent might result in the appearance in the offspring of an unexpected, yet legitimate, blood group. Evidently the last word has not been said as to the reliability of Ottenberg's method; and further observations will be necessary to bring it out of the realm of controversy. The conclusion is that at present science knows of no blood test by which parentage can be determined.—*Jour. A. M. A.*, Oct. 7, 1922.

(1) Hektoen, Ludvig. Iso-Agglutination of Human Corpuscles with Respect to Demonstration of Opsonic Index and to Transfusion of Blood, *J. A. M. A.* 48:1739 (May 25) 1907.

(2) Von Dungern, E., and Hirschfeld, D. L.: Ueber Vererbung gruppenspezifischer Strukturen des Blutes, *Ztschr. f. Immunitätsforsch. u. exper. Therap.* 6:284-292, 1910.

(3) Ottenberg, Reuben: Medicolegal Application of Human Blood Grouping, *J. A. M. A.* 77:682 (Aug. 27) 1921; 78:873 (March 25) 1922; Hereditary Blood Qualities. Medicolegal Application of Human Blood Grouping, *J. Immunol.* 6:363 (Sept.) 1921.

(4) Buchanan, J. A.: Medicolegal Application of the Blood Group, *J. A. M. A.* 78:89 (Jan. 14) 1922; 79:180 (July 15) 1922.

## PROPAGANDA FOR REFORM.

**Heliotherapy.**—The action of far ultraviolet light on normal tissue and the action of near ultraviolet light under certain pathologic conditions have been investigated enough to show that there are well defined effects due to light, closely related to the physiologic results of exposure to radium and the roentgen rays. Recently, Kramer, Casparis and Howland have again demonstrated the healing of the rachitic process in the bones of rachitic children through systematic exposure to the rays from the mercury vapor quartz lamp. The healing of the bones occurred at about the same time that it does after the administration of cod liver oil. The work of Finsen in the treatment of lupus vulgaris emphasizes the importance of considering a diversity of forms of radiant energy in skin affections. In tuberculosis, especially surgical tuberculosis, heliotherapy has long had advocates. Light of short wave length, which is known to have marked bactericidal effects, may not be without salutary influence in the treatment of wounds. Artificial lights, if glass covered, are therefore harmless and therapeutically weak. Sunlight rarely contains enough far ultraviolet rays to produce injury. Consequently, heliotherapy that demands highly potent effects must look to artificial sources of radiation. The quartz mercury arc and bare metallic arcs are known to belong in the potent class, and, it is to be remembered, may be extremely injurious, so that the eyes should be protected from them. (*Jour. A.M.A.*, Sept. 2, 1922, p. 827.)

**Intravenous Medication.**—There are serious limitations to intravenous medication which are likely to be forgotten or overlooked in the enthusiasm for a promising procedure. They involve both disappointments and dangers. These were reviewed by Carl Voegtlin before the Section on Pharmacology and Therapeutics at the St. Louis session of the American Medical Association. Not the least in importance are the difficulties of technique which forms a stumbling block for all too many



physicians. Voegtlin pointed out that the chemical composition of the blood and its physicochemical properties, such as osmotic pressure, hydrogen-ion concentration and colloidal state, are maintained with remarkable constancy and appear to be essential to physiologic wellbeing. A sudden change in reaction, the production of precipitates and subsequent thrombosis in vital organs, the overwhelming of sensitive tissues, such as the cardiac and nervous structures, with high concentration of potent drugs, are a few illustrations of the untoward possibilities in a procedure that often means "more haste and less speed." (J.A.M.A., Sept. 2, 1922, p. 828.)

**Leach Cancer Cure.**—The Indianapolis Cancer Hospital is conducted by C. C. Root and C. A. McNeill. This was formerly called the "Parkview Sanatorium" and later the "Leach Sanatorium." This business was started by Leon T. Leach, mainly as a mail-order "cure" for cancer. When Leach's business was declared a fraud and debarred from the mails, the name was changed to "Leach Sanatorium." Later the name was changed to its present style and McNeill became president and Charles C. Root, treasurer. As the list of those claimed to have been successfully treated by Root and McNeill appeared in Leach's old testimonials, one is justified in assuming that Root and McNeill use the Leach Method. At the time the federal authorities interfered with Leach's business, an analysis was made by the government chemists of the "cure." In effect, the report was:

"**'Cancerol Blood Renovator.'**—This preparation was labeled in part: 'A compound of Essential Oils for the treatment of Malignant Diseases. Predigested Oils for internal administration.' The federal chemists reported that the stuff contained 10 per cent of alcohol, a little more than 16 per cent of total solids, almost wholly sugars, no alkaloids and no oils. It had an odor resembling sarsaparilla and senega. It was not a 'compound of essential oils' neither were there any 'predigested oils' present.

"**'Cancerol.'**—This was nothing but cottonseed oil.

"**'Special Germ Killer and Disinfectant.'**—This was a disinfectant of the creosol type and was to be used by diluting one teaspoonful in

three pints of hot water. Bacteriologic tests showed that the solution, when diluted as prescribed has little if any germicidal value.

"**'Pills.'**—These were colored red and sugar-coated; they were found to consist essentially of baking soda, iron (ferrous) sulphate, a small amount of red pepper and glucose.

"The above comprised the 'treatment' for 'internal' cancer; for 'external' cancer the victims received the Cancerol Blood Renovator and the Pills as described above and, in addition:

"**'Night Oil.'**—This, like 'Cancerol,' was found to be a small bottle of cottonseed oil.

"**'Lay Oil.'**—This was a half-ounce bottle of ichthyol.

"**'Prescription 16.'**—Found to be an alcoholic preparation containing opium.

"**'Healing Salve.'**—This, according to the federal chemists, was vaseline in which were incorporated boracic acid and bismuth salts.

"**'De Vit-Ol.'**—This was a caustic paste—variably used by the 'cancer cure' quacks—and contained 34 per cent of arsenic."

**Flumerin.**—The Council on Pharmacy and Chemistry has published a preliminary report on Flumerin, the disodium salt of hydroxy-mercurifluorescein. A report on "Flumerin—A New Mercurial for the Intravenous Treatment of Syphilis" was read before the Section of Dermatology at the 1922 meeting of the American Medical Association by Edwin C. White, J. H. Hill, Joseph E. Moore and Hugh H. Young. The authors requested the Council to consider Flumerin with a view to its eventual admission to new and non-official remedies. The Council examined the evidence presented in the report of Dr. White and his collaborators and agreed with the authors that "the number of cases treated is sufficient to demonstrate that this mercurial is of value, but is too small to permit the allocation of the drug to a definite place in the therapy of syphilis." The American Medical Association's chemical laboratory examined the new drug and the tests and standards proposed for its control and reported to the Council that the chemical data appeared satisfactory. The Council reports that the acceptance of Flumerin for new and non-official remedies must await confirmatory clinical evidence; but because of the fact that Flumerin is a definite chemical substance and because of the evidence in the paper, a trial of it in select-

ed cases may be warranted. (Jour. A.M.A., Sept. 9, 1922, p. 897.)

**Some Analyses From New Hampshire.—**

A recent "Food and Drug Inspection Number" of the "Bulletin of the New Hampshire State Board of Health" contains the following information in regard to the composition of nostrums: *Potion Antilaiteuse* (N. A. Sirois) consisted of a mixture of epsom salt and powdered juniper berries. *Chipwa Indian Root Blood Purifier* (Lucy Royer) consisted of epsom salt and two or three simple herbs, such as mandrake, spikenard and sarsaparilla. *Best Catarrh Remedy* (Lucy Royer) consisted of a dilution of tannic acid in glycerin. *Nervtone Tablets* (A. F. Schambier) contained arsenic and strychnin. *Angiolymphe du D'Rous* (L'Angiolymphe Laboratory, Dr. P. Roux, Angiers, France).—A tuberculosis cure containing 1.5 per cent solution in water of what is almost wholly sugar, with the possibility of the presence of a small amount of some glucosid. *Noonan's Hair Petrole* (T. Noonan and Sons Co.) contained 17.02 per cent of alcohol, salicylic acid and about 12 per cent of alcohol, salicylic acid and borax. *A La Corbeille Fleurie Eau de Quinine Compound Hair Tonic* (Ed. Pinaud) contained 65.75 per cent of alcohol and a small amount of quinin. *Parker's Hair Balsam* (Hiscox Chemical Works) was a strong solution of lead acetate with sulphur. *Hay's Hair Health* (Philo-Hay Specialties Co.) was a solution of lead acetate with sulphur. *Dr. Durand's Acme Hair Rejuvenator* (Parisian Hair and Corset Stores) was a solution of lead acetate with sulphur. *La Toilette Francaise* (Elite Restorer Co.) contained 1.66 per cent of alcohol, and was an ammonical solution of silver nitrate. *Inecto-Rapid Gray Hair Remedy* (Inecto, Inc.) was a hair dye of the two-solution preparations type, having hydrogen peroxid as one solution and paraphenylendiamin for the other. *Gillespie Scalp Investigator* (Gillespie Mfg. Co.) contained 20.88 per cent of alcohol, together with glycerin, borax and red pepper. *Westphal's Auxiliator* (Paul Westphal) contained 45 per

cent alcohol, glycerin and borax. *Woodbury's Combination Hair Tonic* (John H. Woodbury) contained 26.59 per cent of alcohol, with resorcin. *Mme. Fried's Henna* (Mme. Fried) consisted of henna or a similar herb with considerable copper and iron salts. *Farr's Gray Hair Restorer No. 1* (Brookline Chemical Co.) contained an ammonical solution of silver nitrate. *Wyeth's Sage and Sulphur Compound* (Wyeth Chemical Co., Inc.) was found to be a solution of lead acetate with sulphur. *Ess-Tee-Dee* (Smith T. Dustin) was found to be a solution of arsenic with borax. *Victor's Antiseptic Liquid Shampoo* (T. Noonan and Sons Co.) was found to be essentially a solution of soap. *Danderine* (Knowlton Danderine Co.) was found to contain 8.77 per cent of alcohol, together with salicylic acid and borax. *Flora de Lille Complexion Preparation* (Flora de Lille Co.) was found to be a suspension of bismuth subcarbonate and calcium carbonate with borax. *Champlin's Liquid Pearl* (Champlin Mfg. Co.) contained 2.35 per cent of alcohol and was a suspension of bismuth subcarbonate and calcium carbonate. *Cooper's Complexion Beautifier* (Cooper and Co.) was a suspension of bismuth subcarbonate and calcium carbonate. *Pompeian Hair Massage* (Pompeian Mfg. Co.) contained 15.03 per cent of alcohol, with arsenic, borax, quinin and capsicum. (Jour. A.M.A., Sept. 16, 1922, p. 985.)

**Tethelin Fails.**—In 1916, T. Brailsford Robertson isolated from the anterior lobe of the pituitary glands of cattle, a substance to which he gave the name of tethelin, and which he regarded as the active growth-controlling principle. Tethelin was hailed as a product capable of accelerating the healing of wounds and promoting recovery after inanition. Now a report has been published of feeding experiments carried out at the Institute of Physiology in University College, London, which failed to point to any influence by the oral administration of the anterior lobe substance on the growth of animals. When the manufacture of tethelin was taken up in 1918 by a pharmaceutical firm, the Council on



Pharmacy and Chemistry considered the product. It was found that there was no adequate evidence for its value as a therapeutic agent, and hence the Council postponed definite action on the product until definite evidence had been obtained. Now, however, in part because of the unfavorable report of the English investigation, the Council has concluded the consideration of tethelin and declared it inadmissible to New and Nonofficial Remedies. (Jour. A.M.A., Sept. 16, 1922, p. 972.)

**Angostura Bitters.**—Newspaper advertisements for Angostura Bitters state that Dr. W. C. Wile, formerly vice-president of the American Medical Association, testified that he used the preparation in his practice. Dr. Wile was fourth vice-president, thirty-six years ago. Dr. Wile was in the nostrum business himself and wrote many testimonials. The attitude of the American medical profession toward such activities as those credited to Dr. Wile is entirely different today from that of thirty-six years ago. According to the label, Angostura Bitters is made from pure rum, containing about 45 per cent of alcohol. (Jour. A.M.A., Sept. 23, 1922, p. 106.)

**Graham's Neutroids.**—This alleged cure for obesity is put out by one R. Lincoln Graham, M. D., New York City. (Graham claims to be head of "the famous Graham Sanitarium" of New York City, where, it is said, a new method has been discovered by which the obese, though gluttonous and lazy, may reduce without abandoning either gluttony or laziness! Graham declares that his nostrum contains "no thyroid extract, no free iodids—or harmful drugs of any kind." However, the A.M.A. chemical laboratory found Graham's Neutroids tablets to contain impure iodol, 50 per cent; magnesium carbonate, 43 per cent; starch, 4 per cent; talc, 3 per cent, and iron, a trace. Iodol is tetra-iodo-pyrrol which contains nearly 89 per cent of iodine. It was formerly described in the U. S. Pharmacopeia. Iodol is distinctly poisonous; even when it is applied externally, poisoning may occur. (Jour. A.M.A., Sept. 30, 1922, p. 1136.)

**Introducing a New Drug.**—To what extent are the claims made for a new drug tinctured by commercial considerations, even though put out as the result of investigations carried out by the scientific staff of a firm of standing? And even if the drug is the result of studies carried out by investigators who have no commercial connections there is the question: To what degree has the investigator's enthusiasm tinctured his judgment? An increasing number of physicians abstain from the use of a new drug, until its acceptance for New and Nonofficial Remedies gives assurance that it is worthy of trial. What seems to be an almost ideal method of introducing a new drug has been followed in the case of "Flumerin," the name given to the disodium salt of hyroxy-mercuri-fluorescein. This drug has been elaborated by White, Hill, Moore and Young of Johns Hopkins. These men have declared the composition of the drug, have reported animal experiments of promise, and have demonstrated its efficiency in clinical trials. The investigators announce, however, that the drug will not be commercially available unless independent clinical study confirm their favorable finding that the drug is of value in the treatment of syphilis. That syphilologists may feel warranted to make such trials, Dr. White and his collaborators requested the Council on Pharmacy and Chemistry to examine the evidence for the preparation. This, the Council did, and it has published a preliminary report, stating that the drug is suitable for clinical trial in selected cases. If flumerin becomes an addition to our materia medica, it will be as the result of the orderly procedure: (1) demonstration of its chemical identity and uniformity; (2) animal experiments which give promise of therapeutic value; (3) clinical trials under the auspices of the discoverers, and (4) confirmation of its therapeutic worth by independent clinical investigations. (Jour. A.M.A., Sept. 30, 1922, p. 1149.)

**Ampules Radium Chloride, 2 c.c.**—United States Radium Corp. Radium element,

5 micrograms. For a discussion of the actions, uses and dosage of radium, see New and Nonofficial Remedies, 1922, p. 252. United States Radium Corporation (formerly Radio Chemical Corp.), New York. (See New and Nonofficial Remedies, 1922, p. 261.)

**Ampules Radium Chloride, 2 c.c.**—United States Radium Corp. Radium element, 10 micrograms. Radium Chemical Corporation, New York.

**Ampules Radium Chloride, 2 c.c.**—United States Radium Corp. (Radium element, 25 micrograms.) United States Radium Corporation, New York. (Jour. A.M.A., Sept., 23, 1922, p. 1049.)

**Ferro Sajodin.**—Ferioben. Ferro sajodin is a basic, ferric iodobenhenate, containing at least 5 per cent of iron and at least 24 per cent of iodine. It has the actions of iodides and iron but is claimed to be more stable and palatable than ferrous iodide, not to injure the teeth or to disturb the gastro intestinal tract and that it is free from a constipating tendency. It is claimed that ferro sajodin is easily absorbed but slowly eliminated, thus insuring a more prolonged effect than that obtained from inorganic iodides and iron compounds. Ferro sajodin is indicated in conditions in which iron and iodides are employed, such as anemia, rickets, syphilis, chronic bronchitis and arteriosclerosis with anemia. Ferro sajodin is marketed only in the form of Ferro-sajodin tablets, 8 grains. Winthrop Chemical Co., Inc., New York. (Jour. A.M.A., Sept. 30, 1922, p. 1136.)

**Novocain and L-Suprarenin Tablets "H".**—Each tablet contains novocain 0.06 Gm. (1 grain) and 1-suprarenin synethetic 0.00006 Gm. (1-1000 grain). For a discussion of the actions, uses and dosage of procaine, see New and Nonofficial Remedies, 1922, p. 36. H. A. Metz Laboratories, Inc., New York. (Jour. A.M.A., Sept. 23, 1922, p. 1049.)

## NEW AND NONOFFICIAL REMEDIES.

**Adrenalin Tablets No. 2.**—Each contains adrenalin (see New and Nonofficial Remedies, 1922, p. 109), 0.00033 Gm. (1-200 grain), as c- borate, yielding a 1:1000 solution when dissolved in 5 minims of water. Parke, Davis and Co., Detroit.

**Hypodermic Tablets Adrenalin and Cocain Rx H. (Cylindrical).**—Each contains hydrochlorid, 0.005 Gm. (1-12 grain) and adrenalin (see New and Nonofficial Remedies, 1922, p. 109), 0.00005 Gm. (1-1,200 grain). Parke, Davis and Co., Detroit.

**Brometone Capsules, 5 grains.**—Each capsule contains brometone (see New and Nonofficial Remedies, 1922, p. 75), 5 grains. Parke, Davis and Co., Detroit.

**Corpus Luteum-G. W. C. Co.**—The fresh substance from the corpora lutea of the hog, dried, freed from fat, and powdered. For a discussion of the actions and uses of corpus luteum, see New and Nonofficial Remedies, 1922, p. 208, under "Ovary." The product is also marketed in the form of tablets Corpus Luteum, G. W. C. Co., 3 grains. G. W. Carnrick Co., New York.

**Epinephrin-Lederle.**—A brand of epinephrin-N. N. R. made from the suprarenal glands. For the actions, uses and dosage of epinephrin, see New and Nonofficial Remedies, 1922, p. 108. Epinephrin-Lederle is sold in the form of Solution Epinephrin-Lederle, containing epinephrine sulphate equivalent to 1 part of epinephrin in 1,000 parts of physiological solution of sodium chloride, preserved by a small quantity of sulphurous acid and saturated with carbon dioxide. Lederle Antitoxin Laboratories, New York.

**Hypodermic Tablets No. 50.**—Mercuric Succinimide-Mulford, 0.012 Gm. (1-5 grain) contains mercuric succinimide (see New and Nonofficial Remedies, 1922, p. 194) 0.012 Gm. (1-5 grain). H. K. Mulford Co., Philadelphia.

**Mercurialized Serum No. 2.**—Mulford. For Intraspinal Use. Each package contains the equivalent of 0.0026 Gm. (1-25 grain) of mercuric chloride in 30 c. c. of horse serum. For a discussion of the actions, uses and dosage of mercurialized



profession. It is now possible for the physician, see New and Nonofficial Remedies, 1922, p. 189) H. K. Mulford Co., Philadelphia.

**Tuberculin (Old) and Control for the Pirquet Test.**—A preparation of tuberculin—Koch (see New and Nonofficial Remedies, 1922, p. 293)—marketed in packages containing three sealed glass tubes of tuberculin, each tube containing tuberculin sufficient for one test and three tubes of control material. Parke, Davis and Co.

**Tuberculin Ointment for the Moro Test.**—A preparation of tuberculin—Koch (see New and Nonofficial Remedies, 1922, p. 293)—marketed in collapsible tubes containing 2 Gm. of an ointment consisting of 5Z0 per cent of tuberculin—Koch—and 50 per cent of anhydrous wool fat. Parke, Davis and Co., Detroit. (Jour. A. M. A., Sept. 9, 1922, p. 897.)

**Pyramidon Tablets, 5 grains.**—Each tablet contains pyramidon (see New and Nonofficial Remedies, 1922, p. 251), 5 grains. H. A. Metz Laboratories, Inc., New York.

**Novocain Solution 1 Per Cent Ampules.**—Each contains novocain, 0.06 Gm. (1 grain), sodium chloride, 0.036 Gm. (1-2 grain), and distilled water, 6 c.c. (90 minims), H. A. Metz Laboratories, New York.

The following articles were accepted during August by the Council on Pharmacy and Chemistry:

H. K. Mulford Company: Mercurialized Serum No. 2—Mulford; Mercuric Succinimide Hypodermic Tablets No. 50.

Parke, Davis & Company: Adrenalin and Cocaine Tablets Rx. B; Adrenalin Tablets No. 2; Brometone Capsules, 5 grains; Tuberculin (old) and Control for the Von Pirquet Test; Tuberculin Ointment for the Moro Test.

**WANTED**—Will pay 30c per copy for the following numbers of the Journal of the Medical Association of Georgia: Jan., Feb., 1917; Aug. and Oct., 1918; May, Aug. and Oct., 1919; Jan., 1920. Journal.

## IMPORTANT ANNOUNCEMENT.

The medical profession everywhere will be interested in the announcement that the Abbott Laboratories of Chicago have purchased the Dermatological Research Laboratories of Philadelphia. This is an advance step for the Abbott Laboratories and will give them deserved recognition among the leading manufacturers of medicinal products.

It will be remembered the Dermatological Research Laboratories were the first in the United States to produce Arphenamine during the war when there was such a scarcity of this article; and these laboratories became well known to the medical profession for their patriotic attitude in developing and manufacturing medicinal preparations in this country. By this purchase of the "DRI" products, the Abbott Laboratories inherited their prestige.

The Abbott Laboratories acquired control of the Dermatological Research Laboratories on November 1st; and are continuing to operate them in Philadelphia under the direction of Dr. Geo. W. Raiziss, head of the department of chemistry, and his corps of specially trained assistants. Orders for "DRI" products will be promptly filled from the Philadelphia Laboratories or from their branches or distributors. For further particulars regarding their purchase of the Dermatological Research Laboratories, the readers of this Journal are referred to the statement of the Abbott Laboratories on another page of this issue, entitled "Important Announcement to the Medical Profession."

## AMERICAN SYNTHETICS.

The Fordney-McCumber Tariff Bill, recently passed by Congress, unfortunately does not provide sufficient protection for American-made medicinal chemicals, nor does it compensate for the extensive research work which has been done by American chemists.

The rates on medicinal chemicals were passed over the protest of the medical

sicians to follow up their protest by using only American-made synthetics, and referring to them, at all times, by their American names, as suggested by the Council on Pharmacy and Chemistry of the American Medical Association.

Among the important American-made medicinals which should receive the support of all American physicians, are Arsphenamine, Barbitol, Cinchophen and Procaine. Literature on these products may be obtained by writing to The Abbott Laboratories, Chicago.

### TOO MANY DIPHTHERIA PATIENTS DIE.

Why should there be any diphtheria mortality at all? Antitoxin is to this disease what water is to fire. The answer to the question is, therefore, that the antitoxin is not given soon enough or in sufficient quantity. Fire does not spread more surely or more rapidly among combustible materials than diphtheria in the tissues of the child attacked. The one supreme necessity is to head it off—put it out. A dose of 5,000 units of antitoxin may or may not suffice. This dose should be the minimum; and it is far better to give 10,000 or 20,000 units in one dose than in two.

Nature is helpless in many of these cases; her defensive forces are simply overwhelmed by the poison of the disease. Give the patient a full dose, a liberal dose, of antitoxin, and as many as may be required; arrest the poisoning process; and then nature, relieved, rallies her phagocytic forces and destroys the invading bacilli.

The mortality of diphtheria in this country, according to the Parke, Davis & Co. advertisement elsewhere in this issue, is 10 per cent. One patient out of ten dies. Save the tenth child!

**Animal Parasites and Human Disease**, by Asa C. Chandler, M.S., Ph.D. Instructor in biology, Rice Institute. Second edition, revised. 572 pp., 6x9; 254 clearly reproduced figures. Cloth, \$4.50 postpaid. Published September, 1922.

This book was written primarily for the general public, on a subject about which there is a popular lack of knowledge. An attempt has been made, as far as possible, to avoid technical phraseology, and to omit lengthy descriptions and minute differentiations, which would lessen its value to the lay reader.

Special emphasis has been laid on the biological and practical aspects of the subject, and particular attention is paid to the effects of parasites on their human hosts, either directly as parasites or as disease-transmitting agents—to their life histories—to their means of dissemination—and to the proper methods of treatment and prevention. The important facts are made available for the non-scientifically trained person who is interested in human health and its maintenance.

In addition, it is a book of prime importance to physicians, public health officers and nurses, particularly those engaged in public health work, since it gives them the essential facts concerning parasitic diseases in such a way that the principles underlying their control can be fully understood and intelligently followed out.

As a text or reference book, it is well adapted for courses in parasitology, in the medical and premedical curriculum. Following is a list showing the institutions where "Animal parasites and Human Disease" is now the required classroom textbook:

University of Washington; University of California; Rice Institute; University of Cincinnati; Pennsylvania State College; University of Chicago; University of Alabama; University of Kansas, Alabama Polytechnic Institute; Baylor University; Howard University; George Peabody College for Teachers; Mills College; University of Minnesota.

All school officials and school teachers, particularly in rural districts, should have a copy of this book, with its wealth of information of vital importance, on hand for constant reference.

This new edition brings the work thoroughly up to date in its field.



# Directory

## of the

# Medical Association of Georgia

## for 1922

NOTE: Corrected to December 1st, 1922. Please notify the Secretary-Treasurer promptly of any errors or omissions.

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 Ward, J. A., Cordele, Ga.  
 Ware, Ford, Cordele, Ga.  
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 Williams, P. L., Cordele, Ga.  
 Williams, S. F., Cordele, Ga.



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 Lewis, P. M., Bainbridge, Ga.  
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 Smith, A. C., Elberton, Ga.  
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## FRANKLIN COUNTY.

## Officers.

President ..... Cornog, W. W.  
 Vice-President ..... Pool, E. T.  
 Secretary-Treasurer ..... Smith, B. T.  
 Delegate ..... Brown, S. D.

## Members.

Brown, J. R., R. F. D., Martin, Ga.  
 Brown, S. D., Royston, Ga.  
 Cornog, W. W., Lavonia, Ga.  
 Freeman, J. M., Lavonia, Ga.  
 Heller, W. B., Lavonia, Ga.  
 Lord, C. B., R. F. D., Ashland, Ga.  
 McCrary, H. L., Royston, Ga.  
 McCrary, J. O., Royston, Ga.  
 Pool, E. T., Carnesville, Ga.  
 Parker, G. M., Carnesville, Ga.  
 Ridgway, G. T., Royston, Ga.  
 Rucks, B. T., R. F. D., Ashland, Ga.  
 Smith, B. T., Carnesville, Ga.  
 Terrell, J. H., Canon, Ga.  
 Weldon, D. F., Lavonia, Ga.  
 Whiteside, G. W., Lavonia, Ga.  
 Williams, N. G., Canon, Ga.

## GLYNN COUNTY.

## Officers.

President ..... Dunwoody, J. A.  
 Vice-President ..... Burford, R. E. L.  
 Secretary-Treasurer ..... Harrell, J. P.

## Members.

Branham, H. M., Brunswick, Ga.  
 Burford, R. E. L., Brunswick, Ga.  
 Darby, V. L., Brunswick, Ga.  
 Dunwoody, J. A., Brunswick, Ga.  
 Fox, R. L., Brunswick, Ga.  
 Greer, C. B., Brunswick, Ga.  
 Harrell, J. P., Brunswick, Ga.  
 Holton, T. J., Brunswick, Ga.  
 Schwegler, J. J., Brunswick, Ga.  
 Simmons, J. W., Brunswick, Ga.

## GORDON COUNTY.

## Officers.

President ..... Erwin, J. M.  
 Vice-President ..... Richards, W. R.  
 Secretary-Treasurer ..... Johnston, Z. V.

## Members.

Erwin, J. M., Calhoun, Ga.  
 Hutcherson, S. F., Adairsville, Ga.  
 Johnson Z. V., Route 1, Calhoun, Ga.  
 Mills, G. W., Calhoun, Ga.  
 M-Lain C. F., Calhoun, Ga.  
 Puckett, A. M., Oakman, Ga.  
 Richards, W. R., Calhoun, Ga.  
 Shellhorse, E. O., Calhoun, Ga.

## GRADY COUNTY.

## Officers.

President ..... Warnell, J. B.  
 Vice-President ..... Lindsay, J. A.  
 Secretary-Treasurer ..... Wright, J. E.

## Members.

Arline, T. J., Cairo, Ga.  
 Brawner, L. E., Cairo, Ga.  
 Clower, Eugene, Cairo, Ga.  
 Lindsay, J. A., Cairo, Ga.  
 Reynolds, A. B., Reno, Ga.  
 Walker, W. A., Cairo, Ga.  
 Warnell, J. B., Cairo, Ga.  
 Wright, J. E., Cairo, Ga.

## GREENE COUNTY.

## Officers.

Secretary-Treasurer, Gheesling, Goodwin

## Members.

Adams, E. G., Greensboro, Ga.  
 Foster, H. C., Union Point, Ga.  
 Fuqua, E. F., Greensboro, Ga.  
 Gheesling, Goodwin, Greensboro, Ga.

## GWINNETT COUNTY.

## Officers.

Secretary-Treasurer ..... Kelley, D. C.

## Members.

Cochran, J. H., Norcross, Ga.  
 Guthrie, N. J., Norcross, Ga.  
 Hamrick, H. P., Buford, Ga.  
 Hinton, Chalmers, Lawrenceville, Ga.  
 Hinton, W. T., Dacula, Ga.  
 Kelley, C. A., Lilburn, Ga.  
 Kelley, D. C., Lawrenceville, Ga.  
 Pierce, N. H., Suwanee, Ga.  
 Wilson, B. V., Dacula, Ga.

## HABERSHAM COUNTY.

## Officers.

President ..... Duckett, P. Y.  
 Vice-President ..... Jackson, J. B.  
 Secretary-Treasurer ..... Lamb, R. B.

## Members.

Brabson, T. H., Cornelia, Ga.  
 Burns, J. K., Jr., Clarksville, Ga.

Chandler, W. V., Baldwin, Ga.  
 Duckett, P. Y., Cornelia, Ga.  
 Garrison, W. H., Clarksville, Ga.  
 Hutchinson, E. H., Cornelia, Ga.  
 Jackson, J. B., Clarksville, Ga.  
 Lamb, E. H., Demorest, Ga.  
 Lamb, R. B., Demorest, Ga.  
 McClure, J. H., Cornelia, Ga.

**HALL COUNTY.****Officers.**

President ..... Burns, J. K., Jr.  
 Vice-President ..... Titshaw, H. S.  
 Secretary-Treasurer ..... Cheek, Pratt  
 Delegate ..... Simpson, J. R.

**Members.**

Boland, S. A., Gainesville, Ga.  
 Burns, J. K., Jr., Gainesville, Ga.  
 Cheek, Pratt, Gainesville, Ga.  
 Downey, J. H., Gainesville, Ga.  
 Gibbs, E. T., Gainesville, Ga.  
 Mauldin, J. D., Gainesville, Ga.  
 Meeks, J. L., Gainesville, Ga.  
 Meeks, W. T., Gainesville, Ga.  
 Rogers, R. L., Gainesville, Ga.  
 Rudolph, H. L., Gainesville, Ga.  
 Rudolph, J. B., Gainesville, Ga.  
 Simpson, J. R., Gainesville, Ga.  
 Titshaw, H. S., Gainesville, Ga.  
 Whelchel, C. D., Gainesville, Ga.

**HARALSON COUNTY.****Officers.**

President ..... Gilmore, E. L.  
 Vice-President ..... Johns, T. J.  
 Secretary-Treasurer ..... Johns, L. J.  
 Delegate ..... Malone, W. H.

**Members.**

Brock, W. B., Tallapoosa, Ga.  
 Downey, C. W., Tallapoosa, Ga.  
 Gilmore, E. L., Tallapoosa, Ga.  
 Johns, L. J., Tallapoosa, Ga.  
 Johns, T. J., Tallapoosa, Ga.  
 Malone, W. H., Tallapoosa, Ga.

**HART COUNTY.****Officers.**

President ..... McCurry, W. E.  
 Secretary-Treasurer ..... Clark, Geo. S.  
 Delegate ..... Harper, G. T.

**Members.**

Clark, Geo. S., Hartwell, Ga.  
 Gaines, T. R., Hartwell, Ga.  
 Haine, A. P., Hartwell, Ga.  
 Hailey, W. J., Hartwell, Ga.  
 Harper, G. T., Hartwell, Ga.  
 Jenkins, J. C., Hartwell, Ga.  
 Meredith, A. O., Hartwell, Ga.  
 McCurry, W. E., Hartwell, Ga.  
 Sanders, F. H., Bowersville, Ga.  
 Teasley, B. C., Hartwell, Ga.

**HEARD COUNTY.****Officers.**

President ..... Daniel, J. W.  
 Vice-President ..... Wortham, A. G.  
 Secretary-Treasurer ..... Amis, F. J., Jr.  
 Delegate ..... Taylor, J. C.

**Members.**

Amis, Frank J., Jr., Franklin, Ga.  
 Burgess, P. L., Ropville, Ga.  
 Cook, J. D., Franklin, Ga.  
 Daniel, J. W., Franklin, Ga.  
 Taylor, J. C., Glenn, Ga.

**HENRY COUNTY.****Officers.**

President ..... Carmichael, W. W.  
 Vice-President ..... Coombs, J. A.  
 Secretary-Treasurer ..... Williams, W. A.

**Members.**

Crawford, E. L., Locust Grove, Ga.  
 Ellis, H. C., McDonough, Ga.  
 Sloan, W. P., McDonough, Ga.  
 Smith, J. G., McDonough, Ga.  
 Tye, R. L., McDonough, Ga.

**IRWIN COUNTY.****Officers.**

President ..... Lyons, H. P.  
 Vice-President ..... McLeod, R. F.  
 Secretary-Treasurer ..... Whiddon, L. L.

**Members.**

Harper, A., Wray, Ga.  
 Luke, J. C., Ocilla, Ga.  
 Lyon, H. P., Mystic, Ga.  
 McElroy, S. L., Ocilla, Ga.  
 McLeod, R. F., Ocilla, Ga.  
 Whiddon, L. L., Ocilla, Ga.  
 Willis, G. W., Ocilla, Ga.

**JACKSON COUNTY.****Officers.**

President ..... Pendergrass, J. B.  
 Vice-President ..... Hubbard, F. M.  
 Secretary-Treasurer ..... Bennett, J. C.  
 Delegate ..... Kennedy, W. C.

**Members.**

Allen, L. C., Hoschton, Ga.  
 Allen, M. B., Hoschton, Ga.  
 Bennett, J. C., Jefferson, Ga.  
 Campbell, J. H., Jefferson, Ga.  
 Crow, H. E., Talmo, Ga.  
 Freeman, Ralph, Hoschton, Ga.  
 Hardman, L. G., Commerce, Ga.  
 Hubbard, F. M., Commerce, Ga.  
 Kennedy, W. C., Talmo, Ga.  
 McDonald, E. M., Jefferson, Ga.  
 Pendergrass, J. B., Jefferson, Ga.  
 Rogers, A. A., Commerce, Ga.  
 Sanders, Laetus, Commerce, Ga.  
 Shankle, O. E., Commerce, Ga.  
 Sharp, L. J., Commerce, Ga.  
 Smith, S. J., Jefferson, Ga.

**JASPER COUNTY.****Officers.**

President ..... Paine, J. W.  
 Vice-President ..... Carey, R. F.  
 Secretary-Treasurer ..... Davis, J. V.  
 Delegate ..... Belcher, F. S.

**Members.**

Anderson, J. F., Hillsboro, Ga.  
 Belcher, F. S., Monticello, Ga.  
 Cary, R. F., Monticello, Ga.  
 Davis, J. V., Monticello, Ga.  
 Payne, J. W., Monticello, Ga.

**JENKINS COUNTY.****Officers.**

President ..... Mulkey, Q. A.  
 Vice-President ..... Perkins, M. E.  
 Secretary-Treasurer ..... Thompson, C.

**Members.**

Mulkey, Q. A., Millen, Ga.  
 Perkins, M. E., Millen, Ga.  
 Thompson, C., Millen, Ga.

**JONES COUNTY.****Officers.**

President ..... Riley, J. H.  
 Vice-President ..... Zachry, J. D.  
 Secretary-Treasurer ..... Chambliss, P. R.  
 Delegate ..... Zachry, J. D.

**Members.**

Anderson, W. J., Gray, Ga.  
 Chambliss, P. R., Gray, Ga.  
 Riley, J. H., Haddock, Ga.  
 White, B. L., Round Oak, Ga.  
 Zachry, J. D., Bradley, Ga.

**JOHNSON COUNTY.****Officers.**

President ..... Harris, T. L.  
 Vice-President ..... Johnson, S. M.  
 Secretary-Treasurer ..... Brinson, R. E.  
 Delegate ..... Brinson, R. E.

**Members.**

Beddingfield, P. B., Wrightsville, Ga.  
 Brinson, R. E., Wrightsville, Ga.  
 Brantley, J. G., Wrightsville, Ga.  
 Dent, J. R., Wrightsville, Ga.  
 Harris, T. L., Wrightsville, Ga.  
 Harrison, D. C., Kite, Ga.

**LAMAR COUNTY.****Officers.**

President ..... Corry, J. A.  
 Vice-President ..... Pritchett, B. W.  
 Secretary-Treasurer ..... Anderson, J. M.  
 Delegate ..... Rogers, J. M.

**Members.**

Anderson, J. M., Barnesville, Ga.  
 Barron, J. M. F., R. F. D., Milner, Ga.  
 Cochran, M. F., Barnesville, Ga.  
 Corry, J. A., Barnesville, Ga.  
 Pritchett, D. W., Barnesville, Ga.  
 Rogers, J. M., Barnesville, Ga.  
 Suggs, C. E., Barnesville, Ga.  
 Willis, C. H., Barnesville, Ga.

**LAURENS COUNTY.****Officers.**

President ..... Chappell, R. J.  
 Vice-President ..... Blackshear, T. J.  
 Secretary-Treasurer ..... Cheek, O. H.

**Members.**

Barkwell, J. H., Dublin, Ga.  
 Barton, J. J., Dublin, Ga.  
 Beddingfield, W. E., Rentz, Ga.  
 Beddingfield, W. R., Dublin, Ga.  
 Blackshear, T. J., Jr., Dublin, Ga.  
 Brigham, W. A., Dublin, Ga.

Chappell, R. J., Dudley, Ga.  
 Cheek, O. H., Dublin, Ga.  
 Claxton, E. B., Dublin, Ga.  
 Coleman, A. T., Dublin, Ga.  
 Edmondson, J. W., Dublin, Ga.  
 New, J. E., Dexter, Ga.  
 Parkerson, I. J., Cadwell, Ga.  
 Thompson, E. C., Dublin, Ga.  
 Walker, Sidney, Dublin, Ga.  
 Weddington, J. L., Dublin, Ga.

**LOWNDES COUNTY.****Officers.**

President ..... Smith, J. M.  
 Vice-President ..... Crozier, G. T.  
 Secretary-Treasurer ..... Smith, T. H.  
 Delegate ..... Freeman, D. W.

**Members.**

Allen, G. O., Fargo, Ga.  
 Bird, Frank, Valdosta, Ga.  
 Crozier, G. T., Valdosta, Ga.  
 Freeman, D. W., Valdosta, Ga.  
 Griffin, A., Valdosta, Ga.  
 Huey, H. G., Homerville, Ga.  
 Little, A. G., Valdosta, Ga.  
 Mixson, J. F., Valdosta, Ga.  
 Pennington, J. W., Howell, Ga.  
 Pennington, T. E., Naylor, Ga.  
 Prescott, J. P., Lake Park, Ga.  
 Quarterman, P. C., Valdosta, Ga.  
 Quillian, E. P., Clayville, Ga.  
 Smith, J. M., Valdosta, Ga.  
 Smith, T. H., Valdosta, Ga.  
 Thomas, J. A., Valdosta, Ga.  
 Thomas, F. H., Valdosta, Ga.  
 Wilson, J. C., Valdosta, Ga.

**MACON-TAYLOR COUNTIES.****Officers.**

President ..... Montgomery, R. C.  
 Vice-President ..... Liggins, S. V.  
 Secretary-Treasurer ..... McGill, R. E.  
 Delegate ..... Mullino, F. M.

**Members.**

Bryan, S. H., Reynolds, Ga.  
 Derrick, H. G., Ogleshorpe, Ga.  
 Fickling, C. F., Butler, Ga.  
 Frederick, D. B., Marshallville, Ga.  
 Greer, C. A., Ogleshorpe, Ga.  
 Lightner, L., Ideal, Ga.  
 Liggins, S. B., Montezuma, Ga.  
 Mangham, J. E., Reynolds, Ga.  
 Montgomery, R. C., Butler, Ga.  
 Mullino, F. M., Montezuma, Ga.  
 McGill, R. E., Montezuma, Ga.  
 Nelson, G. W., Marshallville, Ga.  
 Richardson, C. H., Montezuma, Ga.

**MADISON COUNTY.****Officers.**

President ..... Roper, L. E.  
 Vice-President ..... Westbrook, R. J.  
 Secretary-Treasurer ..... Baker, J. L.  
 Delegate ..... Wallace, J. W.

**Members.**

Baker, J. L., Carlton, Ga.  
 Bannister, H. G., Ila, Ga.  
 Moore, M. P., Carlton, Ga.  
 Roper, L. E., Comer, Ga.  
 Wallace, J. W., F. F. D., Commerce, Ga.  
 Westbrook, R. J., Ila, Ga.

**MCDUFFIE COUNTY.****Officers.**

President ..... Gibson, S.  
 Vice-President ..... Gibson, W. A.  
 Secretary-Treasurer ..... Pryce, R. Y.

**Members.**

Gibson, Sterling, Thomson, Ga.  
 Gibson, W. A., Thomson, Ga.  
 Pryce, R. Y., Thomson, Ga.

**MITCHELL COUNTY.****Officers.**

President ..... Brown, J. L.  
 Vice-President ..... Clements, J. R.  
 Secretary-Treasurer ..... Hill, R. A.  
 Delegate ..... Spence, J. M.

**Members.**

Akridge, H. L., Camilla, Ga.  
 Belcher, D. P., Pelham, Ga.  
 Brown, J. L., Camilla, Ga.  
 Bush, O. B., Pelham, Ga.  
 Carreker, J. P., Cotton, Ga.  
 Clements, J. R., Pelham, Ga.  
 Garrett, J. A., Baconton, Ga.  
 Hill, Roy, Pelham, Ga.  
 Hill, W. S., Pelham, Ga.  
 Lewis, F. L., Camilla, Ga.  
 Rainey, C. O., Camilla, Ga.  
 Roles, C. L., Camilla, Ga.



Spence, J. M., Camilla, Ga.  
Stevens, A. T., Sale City, Ga.  
Stevenson, C. A., Camilla, Ga.  
Williams, B., Pelham, Ga.

**MERIWETHER COUNTY.****Officers.**

President ..... Johnson, J. A.  
Vice-President ..... Dixon, J. L.  
Secretary-Treasurer ..... Norman, Frank  
Delegate ..... Bennett, V. H.

**Members.**

Bennett, V. H., Gay, Ga.  
Dixon, J. L., Woodbury, Ga.  
Gilbert, R. B., Greenville, Ga.  
Johnson, J. A., Manchester, Ga.  
Norman, Frank P., Greenville, Ga.  
Terrell, E. B., Greenville, Ga.  
Witt, M. S., Manchester, Ga.

**MONROE COUNTY.****Officers.**

President ..... Williams, G. W.  
Vice-President ..... Smith, B. F.  
Secretary-Treasurer ..... Smith, W. J.

**Members.**

Alexander, G. L., Forsyth, Ga.  
Elrod, J. O., Forsyth, Ga.  
Goolsby, Cullen, Forsyth, Ga.  
Goolsby, R. C., Forsyth, Ga.  
Ponder, W. P., Forsyth, Ga.  
Wright, J. J. C., Tennille, Ga.  
Wright, J. J. C., Culloden, Ga.

**MONTGOMERY COUNTY.****Officers.**

President ..... Dees, J. H.  
Vice-President ..... Moses, W. M.  
Secretary-Treasurer ..... Hunt, J. E.  
Delegate ..... Palmer, J. W.

**Members.**

Hunt, J. E., Mt. Vernon, Ga.  
Palmer, J. W., Ailey, Ga.

**MORGAN COUNTY.****Officers.**

President ..... Bell, A. K.  
Vice-President ..... Prior, F. M.  
Secretary-Treasurer ..... Nicholson, J. H.  
Delegate ..... Troutt, J. H.

**Members.**

Bell, A. K., Madison, Ga.  
Carter, D. M., Madison, Ga.  
Fambrough, W. M., Bostwick, Ga.  
Gambrell, G. C., Rutledge, Ga.  
McGeary, W. C., Madison, Ga.  
Nicholson, J. H., Madison, Ga.  
Porter, J. L., Rutledge, Ga.  
Prior, F. M., Apalachee, Ga.  
Riden, C. F., Bostwick, Ga.  
Trout, J. H., Madison, Ga.

**MUSCOGE COUNTY.****Officers.**

President ..... Anderson, J. M.  
Vice-President ..... Peacock, C. A.  
Secretary-Treasurer ..... Jordan, W. P.  
Delegate ..... Thrash, J. A.

**Members.**

Anderson, J. M., Columbus, Ga.  
Baird, J. M., Columbus, Ga.  
Baird, W. W., Columbus, Ga.  
Baker, E. L., Columbus, Ga.  
Blandford, M. H., Columbus, Ga.  
Brooks, H. W., Geneva, Ga.  
Brooks, R. L., Columbus, Ga.  
Campbell, W. H., Columbus, Ga.  
Carter, C. B., Columbus, Ga.  
Christian, P. H., Columbus, Ga.  
Clarke, J. W., Columbus, Ga.  
Darby, J. I., Columbus, Ga.  
Delamar, Jas., Columbus, Ga.  
Desportes, W. L., Columbus, Ga.  
Dexter, C. A., Columbus, Ga.  
Dykes, A. N., Columbus, Ga.  
Farley, W. E., Columbus, Ga.  
Gautier, W. F., Columbus, Ga.  
Jameson, B. B., Columbus, Ga.  
Jenkins, W. F., Columbus, Ga.  
Johnson, C. D., Columbus, Ga.  
Johnson, J. H., Columbus, Ga.  
Johnson, R. I., Columbus, Ga.  
Jordan, W. P., Columbus, Ga.  
Mitchell, T. E., Columbus, Ga.  
Moncrief, J. T., Columbus, Ga.  
Moses, Alice, Columbus, Ga.  
Munroe, H. S., Columbus, Ga.  
Murray, G. S., Columbus, Ga.  
McDuffie, J., Columbus, Ga.  
McDuffie, J. H., Sr., Columbus, Ga.

Norris, J. P., Columbus, Ga.  
Odum, F. J., Columbus, Ga.  
Peacock, C. A., Columbus, Ga.  
Stewart, W. W., Columbus, Ga.  
Tatum, P. A., Columbus, Ga.  
Thrash, J. A., Columbus, Ga.  
Tillery, Bert, Columbus, Ga.  
Whitehead, W. F., Columbus, Ga.  
Winn, J. H., Columbus, Ga.  
Wooldridge, J. C., Columbus, Ga.  
Youmans, J. R., Columbus, Ga.  
Young, S. E., Columbus, Ga.

**NEWTON COUNTY.****Officers.**

Secretary-Treasurer ..... Travis, W. D.

**Members.**

Hardeman, Chas. T., R. F. D., Covington, Ga.  
Lovelace, J. C., Porterdale, Ga.  
Randle, J. H., Rt. 8, Covington, Ga.  
Sams, J. R., Rt. 8, Covington, Ga.  
Travis, W. D., Covington, Ga.  
Wailes, S. L., Covington, Ga.

**OCMULGEE SOCIETY.****Officers.**

President ..... Whipple, R. L.  
Vice-President ..... Herman, J. D.  
Secretary-Treasurer ..... Pirkle, W. H.  
Delegate ..... Ward, J. C.

**Members.**

Bordeaux, G. W., Chester, Ga.  
Brown, E. C., Hawkinsville, Ga.  
Coleman, W. A., Eastman, Ga.  
Collum, C. F., Chauncey, Ga.  
Hendricks, J. H., Hawkinsville, Ga.  
Herman, I. H., Eastman, Ga.  
Herman, J. D., Eastman, Ga.  
Massey, W. F., Chester, Ga.  
Mathews, J. L., Hawkinsville, Ga.  
Mathews, W. A., Hawkinsville, Ga.  
Pirkle, W. H., Cochran, Ga.  
Smith, A. A., Hawkinsville, Ga.  
Smith, A. L., Cochran, Ga.  
Smith, J. M., Cochran, Ga.  
Wall, J. C., Eastman, Ga.  
Whipple, R. L., Cochran, Ga.  
Wilkins, A. L., Eastman, Ga.  
Williams, W. C., Cochran, Ga.

**PAULDING COUNTY.****Officers.**

President ..... Anderson, J. T.  
Vice-President ..... Ragsdale, Geo. W.  
Secretary-Treasurer ..... Matthews, J. I.

**Members.**

Anderson, J. T., Dallas, Ga.  
Matthews, J. I., Dallas, Ga.  
Ragsdale, Geo. W., Hiram, Ga.

**PICKENS COUNTY.****Members.**

Atherton, H. G., Jasper, Ga.

**PIKE COUNTY.****Officers.**

President ..... Beauchamp, J. C.  
Vice-President ..... Howard, I. B.  
Secretary-Treasurer ..... Head, M. M.  
Delegate ..... Head, D. L.

**Members.**

Beauchamp, J. C., Williamson, Ga.  
Bramhlett, J. C., Meansville, Ga.  
Graves, J. R., Zebulon, Ga.  
Grubbs, J. H., Molena, Ga.  
Howard, I. B., Williamson, Ga.  
Head, D. L., Concord, Ga.  
Head, J. M., Zebulon, Ga.  
Head, M. M., Zebulon, Ga.  
Mallory, R. A., Concord, Ga.

**POLK COUNTY.****Officers.**

President ..... Richardson, E. H.  
Vice-President ..... White, G. M.  
Secretary-Treasurer ..... Chaudron, P. O.  
Delegate ..... Richardson, E. H.

**Members.**

Chaudron, P. O., Cedartown, Ga.  
Cooper, J. J., Cedartown, Ga.  
England, W. G., Cedartown, Ga.  
Good, J. W., Cedartown, Ga.  
Hall, H. M., Cedartown, Ga.  
Howell, J. L., Rockmart, Ga.  
McBride, T. E., Rockmart, Ga.  
Peck, C. W., R. F. D., Cedartown, Ga.  
Pennington, J. E., Esom, Ga.  
Richardson, E. H., Cedartown, Ga.  
Whitley, S. L., Cedartown, Ga.  
Wood, C. V., Cedartown, Ga.

**PUTNAM COUNTY.****Officers.**

President ..... Taliaferro, V. H.  
Vice-President ..... Griffith, E. F.  
Secretary ..... Clark, S. A.  
Delegate ..... Clark, S. A.

**Members.**

Clark, S. A., Eaton, Ga.  
Griffith, E. F., Eatonton, Ga.  
Ledbetter, John, Eatonton, Ga.  
Taliaferro, V. H., Eatonton, Ga.  
Walker, E. Y., Willard, Ga.

**RANDOLPH COUNTY.****Officers.**

President ..... Patterson, J. C.  
Vice-President ..... Martin, F. M.  
Secretary ..... Moore, G. Y.  
Delegate ..... Martin, F. M.

**Members.**

Binion, W. W., Benevolence, Ga.  
Crook, W. W., Cuthbert, Ga.  
Gary, Loren, Georgetown, Ga.  
Harper, T. I., Coleman, Ga.  
Ingram, H. R., Coleman, Ga.  
Martin, I. M., Shellman, Ga.  
Moore, G. Y., Cuthbert, Ga.  
McCurdy, E. C., Shellman, Ga.  
Patterson, I. D., Cuthbert, Ga.  
Patterson, J. C., Cuthbert, Ga.  
Rogers, I. S., Coleman, Ga.  
Rogers, W. T., Coleman, Ga.  
Shepherd, J. L., Carnegie, Ga.  
Weathers, A. I., Shellman, Ga.

**RICHMOND COUNTY.****Officers.**

President ..... Traylor, Geo. A.  
Vice-President ..... Lamar, R. B.  
Secretary-Treasurer ..... Akerman, Jos.  
Delegate ..... Lewis, S. J.

**Members.**

Akerman, J., Augusta, Ga.  
Armstrong, R. M., Augusta, Ga.  
Battey, W. W., Augusta, Ga.  
Bernard, G. T., Augusta, Ga.  
Bryans, C. I., Augusta, Ga.  
Burdashaw, J. F., Augusta, Ga.  
Butler, J. H., Augusta, Ga.  
Coleman, T. D., Augusta, Ga.  
Corney, I. I., Augusta, Ga.  
Crane, C. W., Augusta, Ga.  
Davis, T. L., Augusta, Ga.  
Davidson, A. A., Augusta, Ga.  
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